

Florida

Rails Underfoot
The Red Minnow

*Fishing • Hunting
• Conservation •
Outdoor Recreation*

WILDLIFE

SEPTEMBER 1967

The Florida Magazine for all Sportsmen

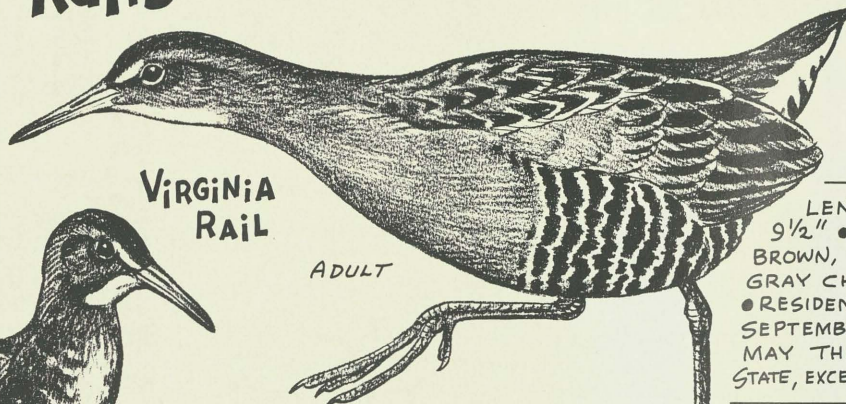
25 CENTS



Florida Wildlife Scrapbook

The Little Rails

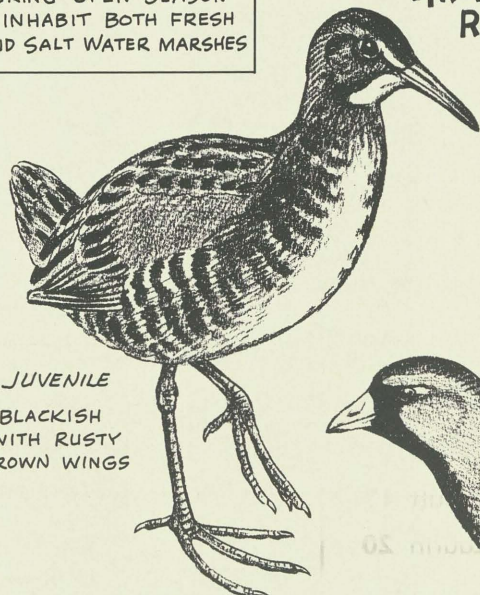
— SMALL SIZE
"KIN FOLKS" OF THE
BIG MARSH HENS
SOUGHT BY HUNTERS
DURING OPEN SEASON
• INHABIT BOTH FRESH
AND SALT WATER MARSHES



Virginia Rail

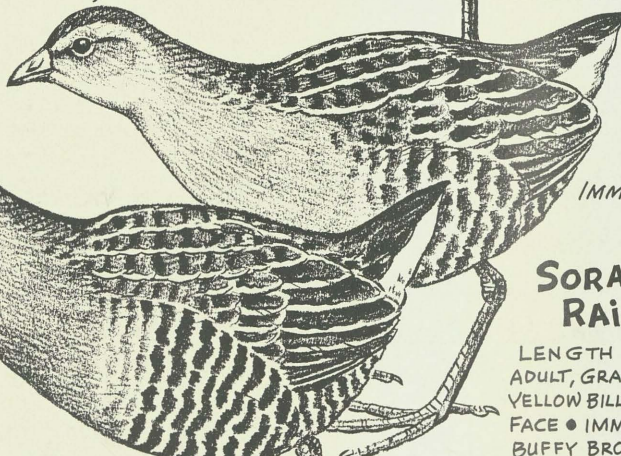
ADULT

LENGTH
9½" • RUSTY
BROWN, WITH
GRAY CHEEKS
• RESIDENT FROM
SEPTEMBER TO
MAY THRUOUT
STATE, EXCEPT KEYS



JUVENILE

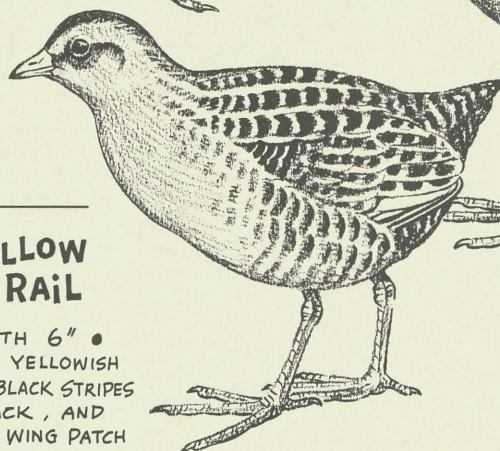
BLACKISH
WITH RUSTY
BROWN WINGS



IMMATURE

SORA RAIL

LENGTH 9" •
ADULT, GRAY-BROWN,
YELLOW BILL & BLACK
FACE • IMMATURE
BUFFY BROWN-NO
BLACK ON FACE
• FOUND THRUOUT
FLORIDA -
LATE AUGUST
THRU MAY



YELLOW RAIL

LENGTH 6" •
BUFFY YELLOWISH
WITH BLACK STRIPES
ON BACK, AND
WHITE WING PATCH
• VERY SECREIVE,
HARD TO FLUSH-LIKE
THE BLACK RAIL IT
SCURRIES THRU THE
GRASS LIKE A MOUSE
• FOUND THRUOUT
FLORIDA FROM
OCTOBER TO MAY



ADULT

BLACK RAIL

LENGTH 5" •
SLATY GRAY WITH
BLACK BILL AND
RUSTY PATCH ON
NECK • DIFFICULT
TO SEE OR FLUSH

PERMANENT RESIDENT THRUOUT STATE
• BLACK & YELLOW RAILS ALSO
INHABIT UPLAND GRASSY FIELDS

— FLORIDA GAME AND FRESH WATER FISH COMMISSION

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State of Florida

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The Cover

Many outdoor recreation and back-country angling buffs appear to be trying canoe-travels "to get away from it all." The cover photo was taken on the lower Wakulla River, a few miles south of Tallahassee. See page 27.

Photo By Johnny Johnson—Florida News Bureau

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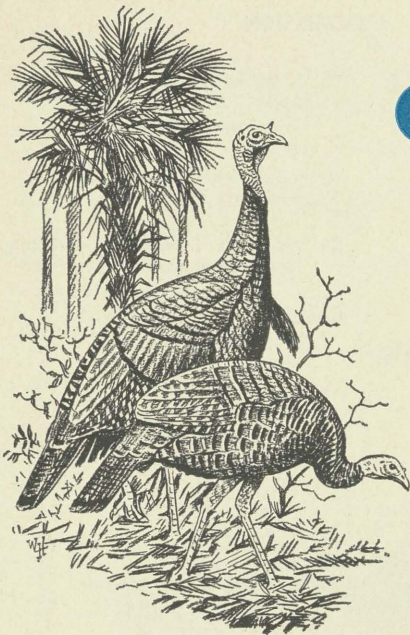
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CONSERVATION SCENE

Combination Agency Efforts For Water Hyacinth Controls

warm but not hot across the duck factories, according to DUCKOLOGICAL, hence water levels were holding up well. In Alberta habitat conditions were excellent province-wide while there were weak spots in south-eastern Saskatchewan and south-western Manitoba. But these were insignificant in the overall picture, which was highly favorable—good news to waterfowlers.

Okeechobee State Park

THE NEW Pahokee State Park, which tops the Hoover Dike on huge Lake Okeechobee in an unusual recreational location, was opened to the public in July. The 30-acre park, located in the city of Pahokee, offers camping, swimming, picknicking, boating and fishing facilities.

Initial development includes a 40-site camping area with two camper convenience buildings containing restrooms, hot and cold showers and laundry facilities. Electrical outlets are available at a number of the camp

sites. The swimming area has a combination bathhouse and restroom building. The spacious picnic grounds, which overlook famed Lake Okeechobee, are equipped with tables, grills and a restroom building.

The new park covers a land area one mile long and approximately 250 feet wide. Because of its unique location on the water the buildings are constructed on pilings nine-and-one-half feet above the high water mark of the lake.

The new recreation facility was constructed under a \$125,210 State Outdoor Recreation grant to which the city of Pahokee and Palm Beach County added \$31,900 for sewer and water lines.

The city will continue to maintain its marina in the center of the new park.

Rough Product Treatment

EVERYONE WHO has ever seen a re-run of "The Untouchables" knows what a miserable failure the Volstead Act was.

Yet prohibition is the basic approach of the Dodd-Celler bill now before the Congress.

The authors of this bill evidently have no faith in the power of the Federal government to regulate the interstate sale of firearms.

Instead, they provide for outright prohibition of all interstate sales of firearms to individuals, with but one unimportant exception.

Even the earlier bills introduced by Senator Dodd himself were built around an affidavit procedure with notice to local law enforcement authorities, and
(Continued on page 34)

THE OUTLOOK FOR waterfowl production continued bright through July, according to DUCKOLOGICAL, published by Ducks Unlimited (Canada). Relatively warm dry weather prevailed across the prairies providing excellent conditions for nesting and for newly-hatched broods.

The main hatch of mallard and pintail had every prospect of being successful, said the report, though some early broods were smaller than the average, due, probably to early bad weather.

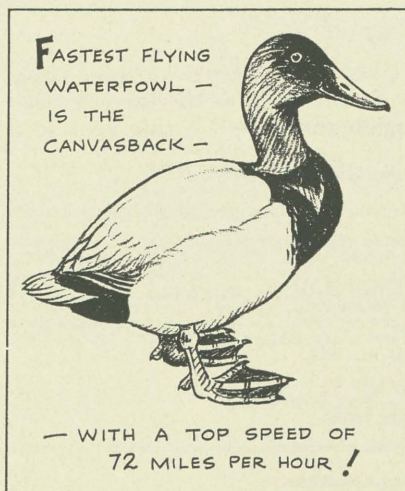
Later nesting ducks were on time and even a little early in Saskatchewan and Manitoba while Alberta's production seemed somewhat behind the eastern prairies' but with excellent prospects.

Mallard and pintail drakes were leaving the ducks as incubation advanced in July, congregating in the larger marshes for the flightless moult. The small number of ducks (hens) with them indicated that the major nesting effort was still underway. Widgeon, or baldpate, gadwall and shoveler drakes were also moving into the moulting areas in good numbers.

Canada geese were mostly flightless and field crews were rounding them up for banding.

The weather was reported

Nature Notes



A NEW PUBLIC BOAT launching ramp was recently completed on the Choctawhatchee River in Walton County, and another is under construction on the Suwannee River in Hamilton County, bringing to 212 the total number of ramps built by the Game and Fresh Water Fish Commission since the beginning of its ramp construction program in October 1958.

The newest Choctawhatchee ramp is located south of Westville off State Road 181 and about 15 miles east of DeFuniak Springs.

The Suwannee ramp, scheduled to be in service early this fall, is located on the graded portion of State Road 249 between Jasper and Live Oak at Nobles Ferry bridge. It is being installed in a launch basin joined to the river by a short canal. It will afford sheltered launching and loading and, hopefully, will be usable even at extreme low water in the up-and-down Suwannee.

Both of these ramps received approval for construction with Federal Aid funds under the Dingell-Johnson program. D-J monies are derived from the Federal excise taxes on sport fishing tackle.

Other Game and Fish Commission ramps are built with state fishing license money from the Fishing Improvement Fund, established in 1963 by the setting aside of \$1 of the \$3 resident license cost.

All are built on a long range planning basis. Perpetual easements must be obtained before Commission construction crews move in.

FISHERY Biologist George Horel's recent series of fish population samples in Lake Trafford (Collier County) provides an intimate glimpse into the ever-changing relationships of a large lake's community of fishes. For example, in 5 block-net samples (approximating one acre each), and 7 samples with a 50-foot bag seine, only 2 *fingerling* black bass were taken, indicating a lack of successful bass reproduction this spring. Bass *beds*, however, were evident all through the sample area.

One explanation of the loss of baby bass was offered by Horel after water chemistry indicated a low oxygen level in the area of the samples—near the north and west shorelines: "Conceivably the dissolved oxygen went low enough to have eliminated the black bass reproduction," he said. In other parts of the lake the oxygen levels were much higher.

Of 41 black bass collected in the 5 net samples, the largest weighed 5-pounds 10-ounces.

All other species were found to be in fine shape. All sizes of black crappie, bluegill, shellcracker and warmouth were present, indicating plenty of reproduction. And the physical condition of all adult fishes was termed "good" . . . better than in pre-



Photo By Wallace Hughes

More than two hundred boat launching ramps have been built, throughout the state, since 1958 by Fisheries Division crews. More are scheduled. The construction cost payments are from D-J and F.I.P. project funds.

vious years when external parasites had pulled their condition down.

Gar and mudfish, though numerous in Lake Trafford, were discounted by Horel's report as having caused any loss of black bass reproduction because "they were as numerous during the years of black bass increase in the lake."

THE SAME technician and the same sampling methods produced some real eye-opening results in Guano Lake (St. Johns County) this spring. Seven hundred sixty-six largemouth bass were collected in and around 5 block-net samples. Most were in the 8 to 10-inch class—undoubtedly the growing young bass he found so abundant in the lake last spring as 2-inches.

"Black bass probably have reproduced sufficiently this year to maintain their growing population," reported Horel.

A staggering 1,186 pounds of fish were taken in a single net sample of 0.85-acre! Included were various species of both salt and fresh water fishes: black bass, shellcracker, bluegill, bullhead, channel bass, speckled trout, drum, croaker, sheephead, mullet and others.

"Fishing is and should continue to be spectacular at the (Guano) dam," noted biologist Horel.

With such amazing fish production as he found at Guano Lake it does indeed seem likely. ●

the MOLE

nature's expert
member of the
underground



MOTHER NATURE has equipped many of her creatures for rather special ways of life. One of these, the mole, known scientifically as *Scalopus aquaticus*, is designed for life underground. He is very well outfitted for this life beneath the soil. His shovel-shaped forefeet are equipped with long stout claws—excellent for digging in soft soil. His hind feet are small, human-shaped, and have sharp claws that serve to steady the mole's body as he digs, while also providing extra "push" for forward motion.

Where does the dirt go? It is scooped over, under

and around the mole's body as he tunnels through the ground—usually leaving a map of his travels in the form of familiar wandering trails of humped-up earth we call mole hills. In the wilderness this is a useful activity because it stirs up, or plows, the soil—in a small way—thus aerating it and making it more fertile. In a well-manicured lawn or vegetable garden, however, the mole's tunneling is not popular at all and usually leads to the destruction of the repeat offender.

Living in the darkness of the underground, moles have no need for sight. Their blind eyes are mere



The sightless mole is a remarkable creature. Shovel-shaped front feet, above, with strong and sharp claws, enable rapid tunneling. The mole's highly sensitive, sharp nose serves as "eyes," along with another sensory organ, a worm-like tail, left, which acts as a "back-up light." The almost human-shaped hind feet have excellent auxiliary digging claws.



Photo Story

By WALLACE HUGHES

Unusual in habits as in appearance, the shapeless mole, above, is sightless and defenseless above ground. At home beneath the soil, however, it is an efficient "animal auger," tunneling here and there in search of food. The dental arrangement, at right, is ideal for grasping worms.



specks, covered with skin and buried under the fur of their heads. To compensate for this, moles are able to "see"—actually to feel—with their extremely sensitive noses and tails—the tail for use in case he wants to back up.

What does a mole find to eat underground? The bulk of his diet consists of earthworms, grubs and other insect inhabitants of the soil. It can truly be said that he is a bug and worm gourmet!

The mole's fur, dark brown with a silvery sheen, is very soft. (What fine fur coats it would make if only moles were larger and their hides not so thin.) In sharp contrast to his fur, the mole's feet, nose and tail are a pale flesh color.

The largest mole might measure 6½ inches in length from nose to tail. His weight, full grown, is about four ounces.

Members of the family *Talpidae*, moles live in sandy, loamy soil throughout Florida. Mamma and Pappa Mole produce two to five young—shall we call them "molets?"—each year, usually in March and April. They are born in a snug underground chamber in a bed of leaves and grass. Like all mammals they are nursed by their mother until old enough to "grub" for themselves.

We say "good luck" to the mole in his underground hideaway. At least he has no need for a fallout shelter. He already has one. ●

IN MAKING Florida, mainly through game management efforts, the most "turkied" state in the East, research biologists have noted a few peculiarities about this historical bird which, while not essential to management techniques, are of interest, nevertheless.

For example, did you know that a turkey's beard grows to 10½ inches in less than two years? But as the bird grows older, the beard wears off from being dragged on the ground while the bird is feeding.

If you see a white, grey, Rhode Island red, or spotted turkey in the woods, don't think you've "had it." (But watch out for that pink one with the lavender polka-dots!) The popular opinion that these miscolorations resulted from mixing with domestic stock is under suspicion. Florida biologists have found no other physical evidence of such intermixing and figure these color variations are contained within, and are an oddity of, the wild turkey.

Researchers have found two wild female turkeys at Fisheating Creek outfitted in gobbler plumage. One was a "functioning female," still able to mate and produce eggs. Such reversals of secondary sex characteristics are caused by ovary damage or extreme old age of an unharvested population.

In the same general area, hunters shot two, 2-spurred turkeys. Normal turkeys have a single spur on each leg. This doubling suggests the presence of genetic factors for multiple spurs. Maybe this isn't so unusual—except for the unearthing 35 years ago of a million-year-old fossilized turkey leg in Pinellas County. It had *three* spurs.

Any latent genetic connection should be entirely coincidental, yet. . . . ?

MUCH OF THE SUCCESS of Florida's deer program lies in the Commission's policy of trapping an excess of animals from one area and relocating them where needed, and where the habitat is suitable.

Deer have traditionally been trapped in box traps baited with corn, apples, hay, salt, sweet potatoes, and mistletoe. But a recent switch has been to drive-trapping over planted oats, wheat, rye, and peas.

The first drive-trap attempts were made near Jacksonville on a 12,000 acre game preserve with planted food plots, then experiments were moved to a game farm in Liberty County. Traps were made of wire with nearly nine-foot-high wings extending out parallel to guide the deer into a trap pen, then into a squeeze chute. A manually operated tripping wire lead from a point near the trap entrance to the trap door of the pen.

But there was some injury to deer when they hit the hard wire. And the rig was not handily portable.

A switch to woven netting and further refinements have now give the Commission a portable rig



Photo By Lovett Williams

"Two spurs . . . who'll give four . . . or six?" Florida wild turkeys sometimes present unusual genetic oddities that help keep game management an interesting profession. The gobbler is a gobbler—a hen is a hen—but not always in appearance.

relatively easy to handle and to set up. The softer net has also cut down deer mortality.

To "spring" the trap, placed over an attractive food plot, workers operate at night, closing the wings then working the deer towards the trap using flashlights. (Day driving sometimes drove deer to exhaustion and shock and was discontinued.) Deer are ultimately forced into the squeeze chute, then into hauling crates. Usually several drives are possible in one night.

The deer are held overnight, tagged with plastic or metal ear tags, then hauled to release sites.

In contrast to box trapping in another state which caught only 251 deer in 370 trap days working 27 traps, Florida game researchers caught 214 deer in 28 nights of trapping, averaging 9 deer per trap day.

A STATEWIDE crackdown on illegal alligator hunting in Florida continues, according to Commission Director O. E. Frye, Jr., who says, "Our officers are using every available means to halt the considerable traffic in illegally taken alligator hides."

'Gator hunting has been prohibited in Florida since 1961 but, like moonshining and other profitable illicit "businesses," it still persists.

"The courts are dealing more and more harshly with convicted alligator hunters, according to our case disposition records," adds Frye, "and we can only hope that this trend will help discourage the practice of illegal alligator hunting, which continues to plague—and cost—the Commission throughout the state." ●

Weights and Baits

FISHING

The rubber bug and spider lures, with long-wavy-type rubber legs, are often the real "bream killer" panfish baits when surface fishing

By CHARLES WATERMAN



LYING ABOUT FISH sizes is almost as popular as it's supposed to be. Sport fishermen, never noted for their aura of truth, are more dishonest about sizes than about locations, numbers or almost anything else.

This is pretty harmless except in the field of promotion where promises of "plenty of 10-pound bass" and scornful talk about "little 3-pound bass" will lead a stranger to disappointment, even if he's had a successful trip.

Most of the weight-stretchers have exaggerated for so long they have actually mesmerized themselves into believing what they catch are as big as they wish they were. Basically honest fishermen often don't want their catch weighed, feeling much happier with a generous estimate which may be up to twice the actual weight of the fish. How can they tell those breathtaking stories with the cold figures of a pocket scale engraved in their consciences?

A good bass angler I know is violently opposed to weighing any fish unless it approaches a national record.

"Don't weigh it! Don't weigh it!" he'll yell in consternation when somebody starts hooking one of his prizes to a scale. He's serious. He wouldn't lie about scale weight but he'll sure make a generous estimate.

I often see his side of it when somebody laughs pityingly at my modest catch reports.

"What was wrong?" he'll say. "We fished the same water yesterday and our fish averaged at least five pounds. Must be something wrong with your methods."

This happens when I honestly report catching 2-pound bass which generally come from the same brood as the "5-pounders" I hear about. Lately I've been weighing some of the smaller fish and am badly handicapped in fishing conversations. Virtually no one else ever weighs a 2-pound bass. He makes a happy guess and seldom underestimates.

You get out of practice very quickly where weight-judging is concerned but a pocket scale used

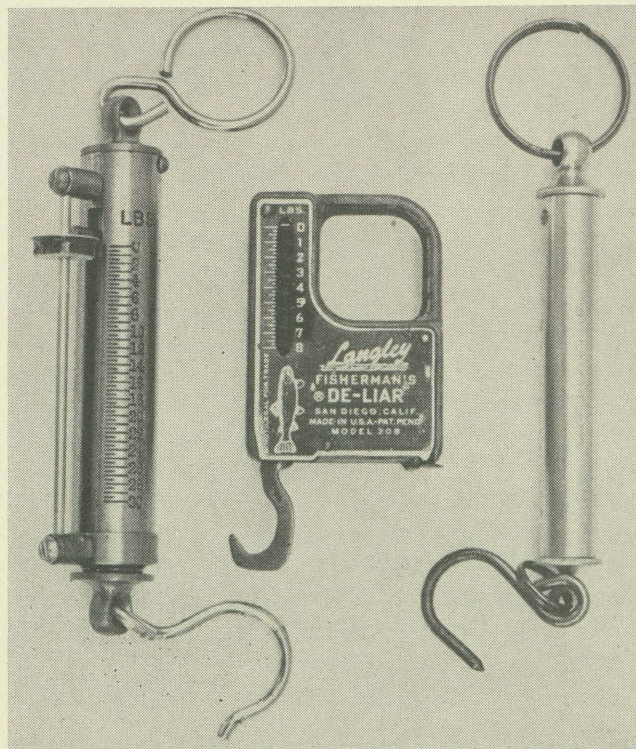
on a couple of trips will make you surprisingly accurate. At times I have been able to guess big bass consistently within half a pound. Then I don't see any for a while and haven't the slightest idea what they weigh.

Last spring I was fishing for snook on the mangrove coast and weighed enough of them that I was uncannily accurate for a time. We caught a bunch of fish that ran around eight pounds and a little better and as long as you stuck to that general category I was a real wizard. Then somebody caught one "a little bigger" and I sagely tagged it at 12 pounds. I was a little off as the scale showed 17 and the guy who caught it treats me coolly.

On the first jump of any fish I am wildly inaccurate. I think it's because he never comes out of the water at exactly the distance I have expected and my rangefinder apparatus doesn't work. I have underestimated quite a number of nice bass. I usually overestimate tarpon because they are so noisy and throw so much water.

I have fished with tarpon guides who could call a

(Continued on next page)



The expensive Chatillon fish scale (left) has a disc which slides on the vertical bar, and remains at the greatest weight indicated by the dial, to make easy reading. Also shown are the Langley De-Liar, center, and an inexpensive fish scale imported from England.

(Continued from preceding page)

big tarpon within 10 pounds when he was jumping. Not me. I haven't caught that many big fish. With 40 to 90-pounders I can easily be 20 pounds wrong.

Although I may overestimate jumping tarpon most of the time I really burn at the people who glance at a picture of one and announce its weight. They don't consider lens length, amount of photo enlargement or anything else. On a recent trip my wife and I made a batch of photos of jumping tarpon. Two of the pictures were pretty similar as to general composition but very deceptive as to fish size. The fish look about the same in pictures but we know one of them weighed 40 pounds and the other less than ten. The fisherman shows in both pictures.

But for some reason you can generally tell a really big fish from a small one, even with nothing for comparison. I have even done it in underwater photos with a plain background and other fishermen who looked at the same pictures did the same.

Probably the most popular scale is the De-liar, inexpensive and generally accurate although not marked off in small units. Most De-liar owners say the scale "weighs light" but I've found it doesn't and put that down to wishful thinking. By accident we bought a fancy scale a while back. We ordered a Chatillon (good brand) and when it came it cost about twice what we expected. Actually it wasn't the model we had ordered but we childishly kept it because it was so pretty. I think it came to better than 20 bucks. As the fish pulls the dial down it shoves a gizmo that stays put at the lowest point reached and this makes reading easy.

It is very interesting to learn to judge fish weights accurately but it will make you unpopular with some of your friends and will make you sound silly when everybody else begins lying. When 3-pound bass are nationally accepted as 5-pounders accuracy will make you a public enemy.

MOST BLUEGILL fishermen are dead set on locating

a spot where they can fill the stringer without moving. Good idea when the fish are bedding and you can locate a good concentration but this bedding business becomes an obsession.

Most panfishermen would do better if they'd move more. Last spring when the bluegills were going pretty good down around Okeechobee, I accidentally eavesdropped a bit on some people camped next to us. Eagerly planning their next day's fishing they talked of nothing but methods of locating fanned-out beds. One party was using an airboat, the high pilot's perch giving him an advantage in sighting beds at a considerable distance.

He'd run the boat along a likely looking shoreline and spot a bed, whereupon he'd give directions to a conspirator on a lower seat and the second fisherman would extend a long canepole and drop the bait in the directed spot. Unless they saw a bed, they'd just keep roaring along at six or eight miles an hour.

Sometimes this operation is very effective. On that particular day it didn't work for some reason. We were fishing long stretches of likely looking water without any attention to bedding areas and caught plenty of fish, using artificial surface bugs, one fisherman casting and the other rowing. Of course some of those fish probably came off beds but we couldn't swear to it.

Panfishing can be good a long way from beds but a lot of people stay home when the moon phase or date isn't right for egg-laying.

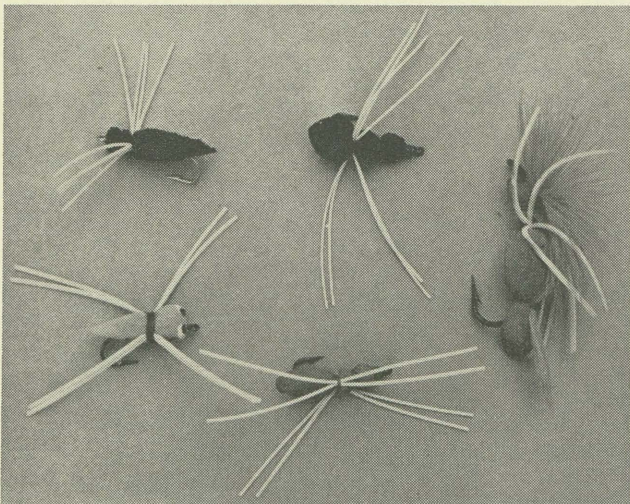
Some of the deadliest bait fishermen move along likely cover, and cover miles with paddle or oars but, generally, it's the artificial lure users who keep on the move. I think the secret of catching really large numbers of panfish along a shoreline is almost constant movement. Really large schools of crappie (speckled perch) may provide an exception.

In fishing canals I have often watched a canepoler walk up to a good-looking spot, catch a fish or two and then settle down for the day. Within the first three minutes he's possibly caught the only ones that intend to bite. If canepolers would expend as much energy as fly fishermen or spin casters there's probably no contest because most fish prefer the real thing to an imitation.

When people quit rowing and paddling the fish get new life insurance.

Rubber spiders are hard to beat as surface panfish baits and can be worked on light canepoles almost as well as with fly rods. A bubble casting weight enables them to work on a spinning outfit. Fastening one to a small spinner and casting or

Among the most deadly panfish lures are rubber spiders and bugs. The rubber legs seem to be highly attractive when left long. Soft lures are always desirable with dainty nibblers that are too slow to learn sponge rubber isn't good to eat.





This camouflaged vest by Game Winner, is in keeping with the belief of many fishermen that unobtrusive clothing can be helpful. Most anglers feel that light colors are fish frighteners.

trolling it with light tackle will often score heavily on deep lying bream.

Rubber spiders get most of their appeal from their long, rubber legs which wave squirmingly even when the thing isn't being moved much. It gets bream of all sizes and a few small bass. I've never caught large bass on spiders.

The sponge rubber "bream killers" don't cost much but they're a little fragile. They're easy to make if you'll bother to locate the materials.

I believe "bream killer" was originally a trade name.

When you put one back into the tackle box, shake the water off it and stick it somewhere that the legs won't stick to anything. When the legs pull off or tear the appeal is gone.

CAMOUFLAGED FISHING jackets and vests are being built by Game Winner, 2940 First National Bank Building, Atlanta, Georgia 30303, and you can get more dope about them from a sporting goods dealer. They're new this year.

They probably won't sell too many of them in the South where fishing vests and jackets aren't popular except on fresh water trout streams but I think it's a good idea.

Subdued clothing is undoubtedly a help in some kinds of fishing, especially along shallow shorelines or flats. Nearly all of the good bonefishermen try to leave gaudy gear at home. From looking at fishermen through a diver's mask I conclude the

worst of all is white clothing, plainly visible at long distances from under water.

This brings us around to the old question of boat color. I know some guides who wouldn't have anything but a white boat, even though they know it's no help in sneaking up on fidgety fish. White, they figure, is the cleanest, sharpest paint job they can use and it's traditionally the stuff for fine boats.

To take off some of the curse they debate long and earnestly about the color for boat bottoms, the consensus being that dull red (popular color of non-fouling bottoms anyway) is least likely to put fish on the lam. In the shallows a white boat stands out like a high rise apartment building, even if the bottom is painted in images of seaweed and schools of baitfish. It probably doesn't make much difference in deep water but when the fish gets a good, horizontal look at a white boat with a bunch of fishermen in white shirts he's not apt to take it for driftwood.

I'm not embarking on any research kick but think any dull color will be a help along shallow banks or on any kind of flat.

Duck hunters get far out in boat camouflage and some of them can almost make a boat go away with a paint brush. I don't think fishermen need go that far as a fisheye view is distorted at best.

I WAS ALMOST burned in effigy the other day when I spoke out of turn on a fishing panel and said I thought there was too much emphasis on distance casting.

The subject was primarily fly fishing and I guess I was a bit too emphatic when I spoke of T-shirt ripping and deck-stomping in an effort at getting a few more feet of distance. I backed down when I found I was getting exceedingly unpopular. I examined my case in retrospect some time later and tried to think of the real reasons for casts of moderate length.

Really, there are three: Economy of effort, accuracy and lure control. The latter also covers the problems of hooking fish. Accuracy is relatively unimportant when fishing open water with no fish in sight. Lure control becomes less important if the hooks are needle sharp (mine seldom are).

Where is accuracy important? Well, it's essential in shoreline fishing. Inaccurate casters nearly always have the light end of the stringer here and I've seen that proved many times but there is less and less shoreline casting every year.

It's necessary when casting to sighted fish as in the case of schooling bass, bonefish and tarpon on the flats. Without accuracy in these situations you're lost and most guides say: "Wait until you're 50 feet away so you can lay it just right."

But I guess in most fishing accuracy isn't very important after all and I'm the one out of date and out of step. ●



The Clapper Rail

Florida-style marsh hen hunting is not for the senile. More often heard than seen, these retiring marsh dwellers—both rails and gallinules—are challenging birds from any angle

Rails Underfoot

THE TIME IS NOW for planning and preparing your gear for the first hunting season of 1967-68, the marsh hen hunts, opening September 16 throughout Florida. Lightly regarded by many hunters, these marsh-dwelling birds provide the ideal target for sharpening the old eye in preparation for other game. They're well distributed, slow in flight and provide the makings of good wildlife dinners. A liberal daily bag limit per hunter affords lots of shooting per outing, too.

Those who have heard that there's no challenge or sport to marsh hen hunting have something to learn by trying it for themselves. These secretive ghosts of the marshlands, more often heard than seen, are extremely reluctant to fly when they can run silently through the protective grass instead. So getting them up is a sport in itself. And hitting a marsh hen is not quite the cinch it has been called, though it isn't really difficult either. They usually wait until the gunner is on top of them before struggling into flight, an unnerving maneuver that accounts for many a miss. Just finding a downed marsh hen is pure woodsmanship—or should we say marshmanship? Its fall must be marked by the shooter more accurately than most game birds if it is not to be lost in the tall marsh grass.

Additionally, in support of the manliness of marsh hen hunting are the highly exerting methods employed, particularly that of mud slogging—covering the marshes afoot. This is definitely not for the lily-livered or the cardiac case. It requires stamina and determination; good legs and good lungs.

What's it all about? What are marsh hens, anyway? They're rails and gallinules, members of the family of birds called *Rallidae* by scientists and regulations booklets. They include the Clapper Rail, the King Rail, the Sora Rail, the Virginia Rail, the tiny Black and Yellow Rails plus the Florida and the Purple Gallinules.

Hunting is usually limited to the Clapper, King and Sora rails and the gallinules because they are the largest and most numerous. In the Sunshine State the big attraction is the Clapper. It is the most plentiful of all and is found in hundreds of miles of Florida tidal marshes and creeks the year round, though all rails are migratory birds.

The largest rail, the King, is primarily an inhabitant of fresh water marshes, as are gallinules. They provide considerable inland shooting. In some sections of the country the Sora, a chicken-like

(Continued on next page)

By GENE SMITH

The Clapper Rail is "the marsh hen" to most Florida hunters. A stealthy, shy inhabitant of brackish and salt marshes, the Clapper is the second largest, and most plentiful, of five species of rails hunted hereabouts.



Photos By Wallace Hughes



Photo By Marlin DeFoor

Marsh Hen hunters expect no "whistling wings in the sky" as do duck hunters. Rails are reluctant aerialists, taking only labored, low-level and short flights. Many shots are less than head high. Walk-up hunts for marsh hens are the methods along the Gulf coast. Along the Atlantic seaboard, when "rail tides" are high, it is pole boating methods that prove best for hunting rails.

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rail—bill, cluck and all—is the main species hunted. But for all practical purposes, the Clapper is "the marsh hen" to Florida scattergunners. (Note. Rails are often confused with snipe, which are also long-billed, slender marsh birds. But the rail is larger and has a slight but noticeable downward curve in his bill compared to the straighter model of the snipe, whose season opens statewide November 11.)

The Clapper feeds mainly on small marine mollusks, aquatic insects, worms, snails, fiddler crabs, shrimp, minnows and a few seeds and other plant material. He is about 15 inches in length and has a yellow bill—long and handy for probing the mud flats for food. His upper body is brown to grayish; the underparts are lighter. The sides are barred with broad light and dark stripes and the tail is short and upturned. Young marsh hens are downy, jet black and capable of moving about and feeding almost from the instant of hatching.

Now that we know what we're looking for let's talk hunting.

Two distinctive situations dictate the marsh hen hunting methods used in Florida. On the Atlantic coast where tides are high enough to sufficiently flood extensive areas, a flat bottomed skiff is poled or paddled by one hunter while his partner shoots. On the Gulf coast, however, which has considerably less rise and fall of the tides, boating is impractical if not impossible on hen hunts. Gulf coast hunters have found that mud slogging is the most productive method and that low tide makes the slogging a little easier while also bringing the feeding marsh hens down into shorter cover, making for easier flushes.

The "rail tides" are good in Nassau, Duval and St. Johns counties. Hunting from a shallow draft boat there is probably the best in the state. There's no shortage of space and usually no lack of birds. As a boat moves from one high clump of vegetation to another (always under "Norwegian steam"—elbow grease—because hunting migratory game birds from a moving power or sail boat is illegal) the marsh hens flush with considerable regularity. They rise in flight awkwardly, legs dangling and wings laboring mightily to sustain flight. Their speed is not great unless they pick up a good tail wind. Most of the time they fly away in a straight line at just enough altitude to clear the grass, which puts them at about shoulder level, making for relatively easy gun swing and point.

The best Atlantic coast hunting is possible during the two hours before high tide and for about an hour and a half after. Combination boating and wading hunts are often possible but extreme cau-

Marsh Hens (Rails and Gallinules)

Season: September 16 through November 24

Shooting Hours:

One-half hour before sunrise to sunset

Bag Limits

Clapper and King Rails

Daily Limit 15; Possession Limit 30
(singly or in aggregate)

Sora, Virginia and Yellow Rails

Daily Limit 15; Possession Limit 30
(singly or in aggregate)

Florida and Purple Gallinules

Daily Limit 15; Possession Limit 30
(singly or in aggregate)

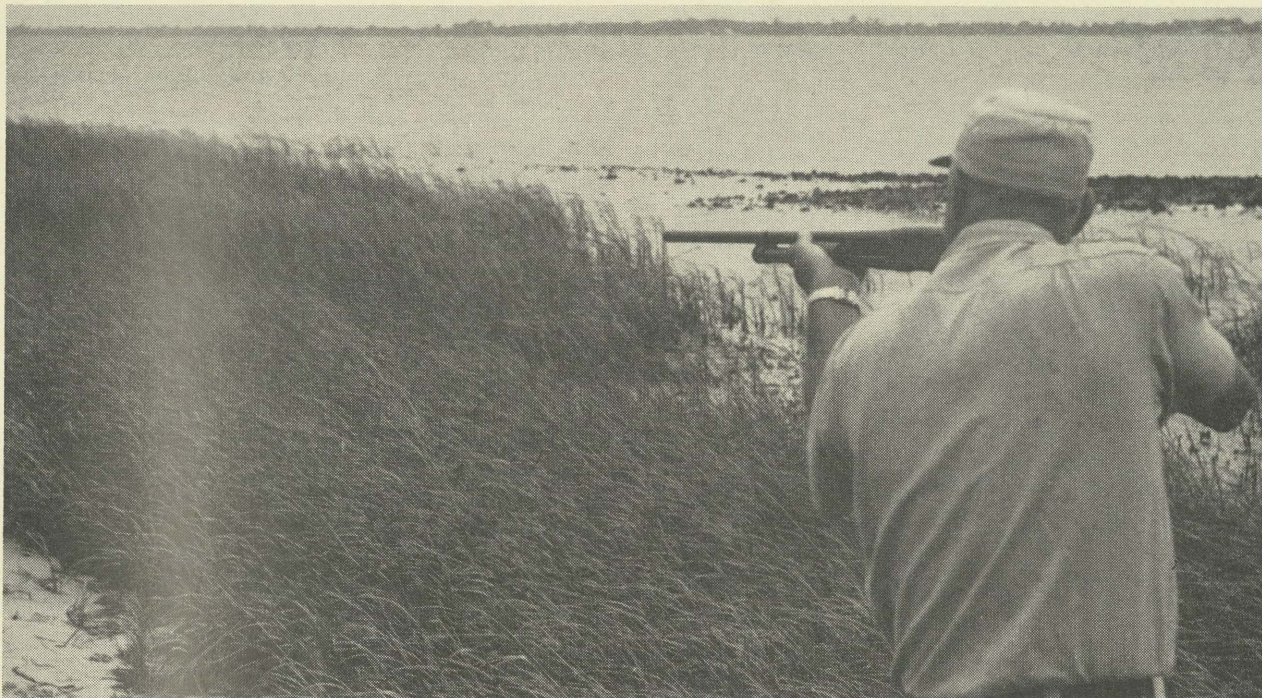


Photo By Wallace Hughes

tion against stepping into a deep wash-out must be taken. Waders are used but more often marsh hen hunters wear tightly bound sneakers to protect their feet and old clothes that will allow a short swim if the need arises. Waders, it has been observed, can become anchors.

Marsh hens have gotta be somewhere all the time. They feed all day but it takes a tide change to put them where the hunter can get at them. Highs limit their walking areas and they take to the high spots. Lows bring them voluntarily to the short cover and very often right out onto the flats. In between they're heard clacking and that's about all . . . in alarm at one's approach and in triumph and derision at his departure. The fun is in finding them and making them present a target.

The latter is no easy trick if ol' marsh bird really wants to be obstinate. So well adapted is this stealthy bird for survival in the marshes that he knows he's safer deep in the needlerush or cat-tail flags than in the air. Consequently, at the approach of supposed danger the marsh hen will likely freeze in hopes of not being detected.

That's only the first of his ground defenses. The next in his bag of tricks is outright exasperating to the hunter. Once spooked, as we mentioned earlier, he much prefers walking to flying and is able to move in absolute silence and with incredible speed through seemingly impenetrable growths of vegetation. This he accomplishes because of his ability to compress his body (would you believe he's "skinny as a rail" anyway?) and literally spear his way along with lowered head and outstretched bill. All else failing the marsh hen labors into short flight before dropping back into the protection of the grass to hoof it some more—if you miss.

A typical "walk up" marsh hen hunt works like this: two or three hunters usually walk, or wade, abreast with 10 or 15 yards separating them. The end men, if there are three (or more), cover straightaway and left or right shots. The center hunter takes only the area in front. If the shooting all happens to fall one way—which may occasionally happen—positions are rotated to give each gunner a share of the action. In good bird areas the shooting gets so hot that shots are alternated just for fun.

A variation of this type hunt is to have several hunters move in a swing, or arc, around a particularly good looking clump of cover. This herds the birds into a small area and results in numbers being flushed at the same time. Sectors of fire must still be observed in order to keep the hunting safe—but the birds usually scatter very obligingly.

The Gulf coast counties of Bay, Franklin and Gulf provide most of the tidal flats suitable for foot slogging. Their miles and miles of bay shore produce good numbers of birds and relatively good footing.

September marsh hen hunting is by no means restricted to North Florida. Some excellent shooting is available in Flagler, Volusia, parts of Monroe, Collier, Pinellas and other counties. While the main interest in this shooting sport has traditionally been in the Northeast and Northwest Regions, some marsh hen hunting no doubt takes place in all 35 coastal Florida counties—or it certainly could.

Access is the number one drawback. Not all good marshes are easily reached.

Where hunters can go they should watch for birds along higher areas and in dense cover. Often

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along a grown up dike, a highway, or a railroad fill through marshy country is a good place to flush marsh hens. In other areas give special attention to clumps and hummocks, where birds are most likely to be isolated at high tide.

A good practice is to scan likely hunting areas before the season opens to determine bird populations and feeding habits. This is especially helpful in areas that can be reached without too much difficulty, such as a long shoreline that is visible from some highway. The use of a binocular is highly desirable.

The staccato "clack-clack" notes of the marsh hen may fool even an experienced hunter. They often seem to issue from cover just feet away when actually the bird is a hundred or more yards off. Another curious trait gives these wily creatures yet another similarity to ghosts. They do not hesitate to take to the water in eluding man or dog, being excellent swimmers and divers though not web footed. Rails have been observed to cross short water passages by simply walking along the bottom, grasping vegetation with their long toes. This sometimes contributes to a nearly genuine "disappearing act" on the part of Mr. Rail.

Speaking of dogs, the marsh hen hunter is far ahead of the game if he uses a good dog of one of the retrieving breeds. They serve well in seeking out and flushing birds in addition to retrieving downed game and capturing cripples that otherwise would be wasted, or at least left to the mercy of predators. All waterfowlers realize the good conservation aspect of using retrievers in their sport. Game should wind up in the bag, not in the grass.

Most marsh hen hunters use a good patterning shotgun of no more muzzle constriction than modified. Field loads of numbers 7½ to 9 are sufficient for taking the fragile rail. The waterproof plastic cased shells are highly recommended.

With the liberal bag limits, not hard to attain in an average hunt and easy in a really good marsh, there is a fine wildfowl dinner in the making for the family of the sportsman who goes after marsh hens.

Here are a couple of tips on cleaning and preparing your birds for the feast. Draw them as soon after the kill as possible—a good rule for any wild game. Skin them and soak in a fairly strong salt solution for at least 4 hours and overnight if possible. Remove shot with a flattened nail or nut meat picker. They may then be handled as the chef so chooses: baked, broiled, fried, fricasseed, or in a pilau (Oriental to Cracker translation: "purlow").

At one time a wasteful slaughter, well docu-

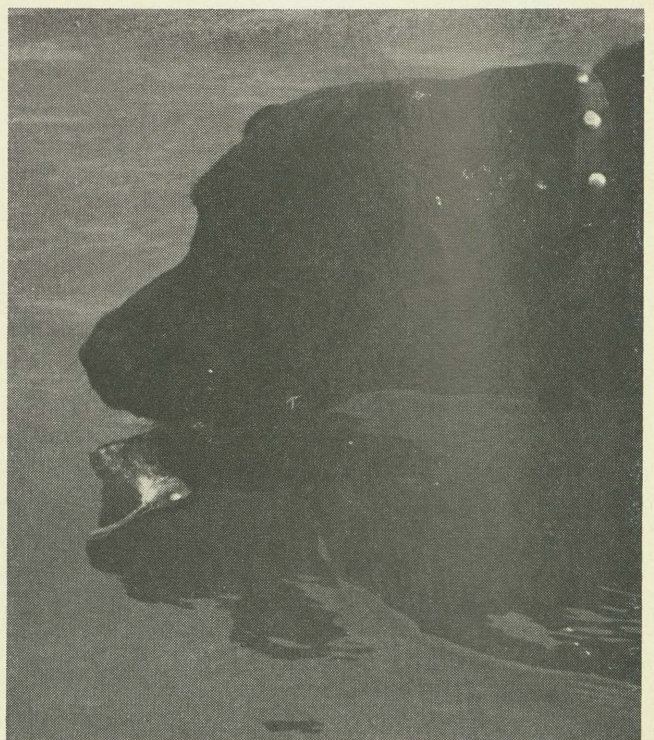
mented by Audubon and others, marsh hen hunting is now a respected and well regulated form of wildfowl hunting. Since rails are indeed migratory as a family, the annual framework of hunting regulations is presented to the states by the U. S. Fish and Wildlife Service. Florida has chosen 70 consecutive days between September 16 and November 24 for its 1967 marsh hen season, a period that will best utilize the high tides along the Atlantic seaboard.

Since marsh hens are so prolific, nesting repeatedly, if necessary, to get off two annual broods of nine to twelve young, and since they live fairly close to civilization without undue concern for human traffic, the species cannot possibly be decimated by the limited gun hunting that Floridians enjoy. Natural predators, including raccoons, snakes, turtles, 'gators, hawks and owls take far more rails than do hunters. And the combined pressures of predation, natural mortality and hunting have proved no deterrent to the marsh hen crops from one year to another.

Since it is the first season to open in Florida, marsh hen hunting is often a hot, sweaty and downright tiring—but enjoyable—proposition. But it is welcomed by many as the first excuse to take out the old thunderstick and limber up for the cooler days and other game ahead.

Good gunning to you this season. Remember to observe the true sportsman's code of conduct afield: Be properly licensed. Know the regulations. Learn to identify game before you shoot. Make an honest effort to pick up all game knocked down. And play it safe this year from the very beginning. ●

Photo By Wallace Hughes



Downed and crippled birds are seldom lost to a good retriever, any wildfowler's best friend. Game should wind up in the bag, not left in the field. This marsh hen is headed for the table.

the Red Minnow

one of nature's most colorful
fishing baits

By ART HUTT

THERE'S MAGIC to the phrase—"the red minnows are in!" Like "they're off" to a racing fan, the "here they come" of a hunter as a flock of ducks slants toward his decoys, the phrase stirs the blood, quickens the pulse.

The phrase may be meaningless to many Florida fishermen.

But to others, it evokes a wild-eyed look and a tendency to lay all other matters aside until the go-fishing urge is fulfilled. For with red minnows, these anglers know you can reap a bonanza of bass, a plentitude of panfish.

Or as one departing fisherman who had just pulled his wire basketful of bream into his boat called out to his benefactor, "Thanks for the red minnows. We wouldn't have caught a darn thing without them!" Such testimonials, unsolicited and unrehearsed, are common in the red-minnow-as-bait world.

Why such an interest in a minnow that rarely exceeds two inches? Simply this: their bright-red presence practically assures excitement and success. And you can't say that about all natural baits.

Typical was a recent scene at Central Florida's Lake Yale. At one edge of a pad-filled cove, seven boats were closely grouped. They ranged in size from a homemade skiff manned by two boys up to a high-powered luxury runabout. Here and there, pads vibrated as fish bumped into them. Cane poles were in constant arcs as bluegills, copperheads, and shellcrackers flashed in the sun when one boat or another heaved a struggling catch aboard. The



The red minnow is a slender, neat fish with black spot at base of tail. Normally it is straw-colored, but turns red when spawning.

boats with the most activity were using red minnows. Two boats, one with crickets, the other with worms, were having a quiet time.

Like the Frenchman said, "Five out of seven can't be wrong!"

On this particular day, bream-type fish were in abundance. But when bass move in to feed, the cane poles bend even more. I recall hearing about red minnow catches of bass several years ago in Lake Harris in such numbers that I still blush to think that any self-respecting "sportsman" would be so hoggish. But such catches do demonstrate the effectiveness of the red minnow as bait.

I first eyeballed these minnows many years ago from a bridge over a stream near Bushnell. When the red "glob" appeared along the bank, I couldn't figure it out. Finally, I saw it was a school of bright red minnows, sometimes a ball-shaped mass, then

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lengthening into a bright red ribbon, or exploding with a skyrocket effect when the minnows were alarmed.

Normally, however, you don't see them although you can predict their presence by the small but constant shivering of the lily pads or weeds. Healthier jerks of the same vegetation usually indicate bream or bass in the area.

There isn't much background information about this little bait, formally referred to as *Notropis maculatus*. Slender and neatly shaped, except for the temporary red color at spawning time, this minnow's only obvious outstanding feature is an eye-sized black spot at the base of its tail. It also has a dark lateral stripe. Under magnification, however, the incomplete lateral line is a dead giveaway to the species. This row of special sensory organs normally extends from head to tail in most bony fishes. In the red minnow, it doesn't quite make it.

One book hangs the title "taillight shiner" on this species.

Most of the year, the red minnow is content to mosey around in lakes, rivers, and streams clad in a straw-colored anonymity.

But during its active spawning season, which

may start as early as March and extend through the summer, these minnows don a gay garb which varies from pink-tinted fins to a bright red from head to tail.

Most fishermen believe that the color results from the minnows gorging themselves on bream eggs—sort of an advanced stage of the hives. Although biologists don't know exactly how it occurs, they know it is a phenomena called "nuptial coloring" which is brought about, possibly, by hormones secreted or generated by the fulfillment of the sex activities and the general "excitement" during such times. The reddest coloration occurs at the height of the individual's spawning period.

Their eggs are sticky and attach themselves to vegetation which, by the way, may insure the success of this species. One prominent Florida biologist has noted that the fish which lay eggs in nests on the bottom seem to be losing out to those whose eggs attach to vegetation. Pollution and siltation are factors working against bottom layers, such as the bass, and for the other fish, such as gar and shad.

Anyhow, the bright-red, shiny minnow is a real fish attractor. Their masses and odor emitted by the spawning activities may have something to do with it, too.

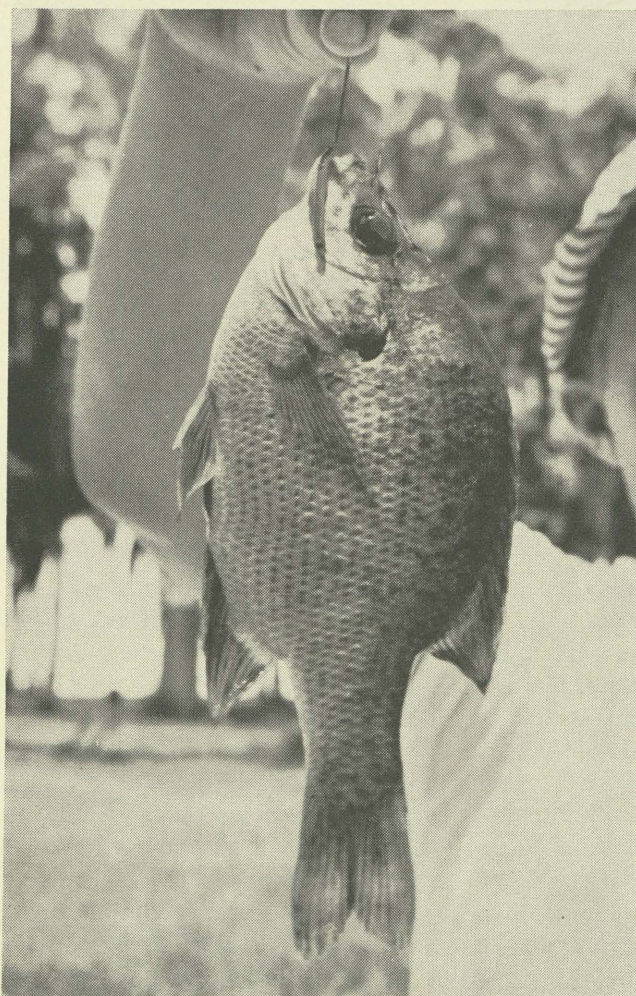
Happily, it is easy to catch red minnows when they're running. You can make your own net by taking a piece of wire screening about two to three feet square (copper is flexible to work with), and tying a piece of stout cord to each corner. Join these in a common knot about two feet above the center of the net. Continue one line on another five to ten feet as the main line.

Bait is unnecessary. Where there are red minnows, sink the net between the bonnets. You may have to push it down with an oar or butt end of a pole to get it where it should be—on the bottom. Give it about five minutes, then pull it up quickly. At the worst, your net will come up empty, in which case you should move or try again. At best, you might have a quart or two of flopping minnows. Somewhere in between is the average.

While they'll survive OK in a livewell for some length of time, red minnows don't take too kindly to storage. I experimented with 18 overnight in one of those air-breathing buckets to see what would happen. Twelve died the first night, the remainder the second night. In addition, with their pleasures interrupted, the bright colors faded although their fins retained their rosy tint.

So, don't try to "stock up." Catch your red minnows as they are needed.

Photos By Art Hutt



The bluegill is especially fond of red minnows. Assorted panfish-types, bass and occasional crappie grab them, too.



A line of fishing boats means activity—in this case red minnows are both “in” and producing. When they are “in,” plenty can be netted right on the fishing spot. They are somewhat “delicate,” however, and “keeping” is difficult.

A cane pole is a standard red-minnow fishing rig. Hooks can vary between perch and bluegill size—the larger one for bass, the smaller one for bream.

To me, there is still an area of confusion: just what is attracting what? With bass, the answer is simple. They move in for a red-minnow feast. But where bedding bream and red minnows occur together, is it just coincidence or do the bream select a site near a ready food supply, or do the spawning red minnows move in to gorge on the bream eggs? For these and answers to other questions—don’t ask me. Just be glad the situation exists.

One minnow per hook usually suffices. But if you are in bass, adding a second or third can sometimes make a difference. There seems to be no special techniques involved in fishing with red minnows although I have seen some fishermen jiggling them along like perch bait. Most fishermen just put the minnow out and leave it, however.

Since there is no exact timetable on where and when red minnows will show up, the best bet is to keep in touch with your local tackle dealer. He’s the guy who knows what is going on in the fishing world around you.

From my own observations, red minnows seem to inhabit only the larger lakes (plus rivers and streams throughout Florida). For example, I’d wager my Johnson Spoon that there aren’t any in the clear, land-locked lake I live on. Yet in my own Central Florida area I know they’re in all of the larger lakes—Harris, Griffin, Eustis, Yale, to name a few.

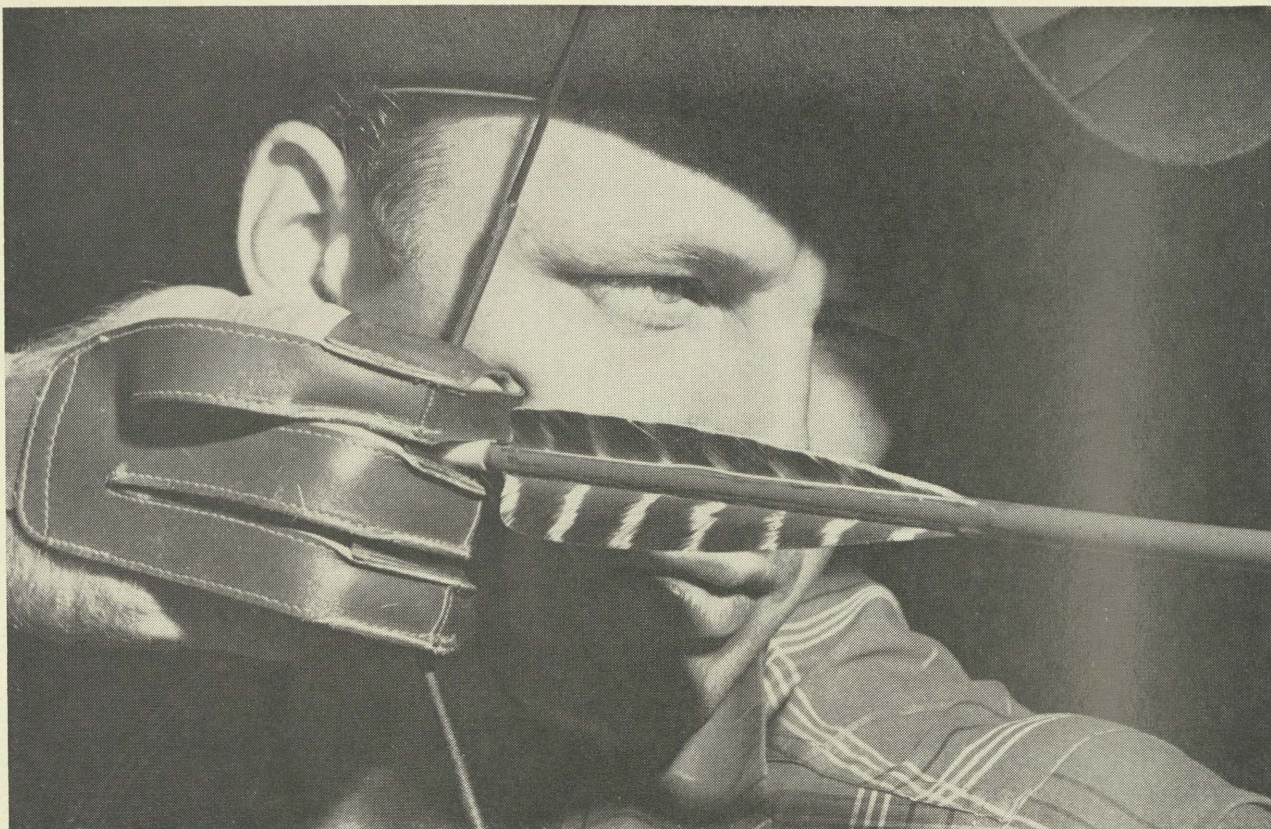


To digress slightly, mind your manners when you are out red-minnowing or when you are fishing around any bedding fish. Too often, an unknowing (or plain inconsiderate) fisherman runs his motor full blast into the thick of things, scaring the fish and causing downright hostile stares and feelings. No shootings have been reported yet, but . . .

So, paddle in and paddle out. You’ll catch more fish and increase your own stature as a true sportsman.

And above all look and listen for any clues that the red minnows “are in.”

It might be a totally new and productive experience for you. ●



Arrow anchor point on the face must be consistent from shot to shot, for real accuracy.

far from being an easy hunting sport, archers depend greatly on elements of luck association

FOR SIXTEEN consecutive days, from September 16 through October 1, Florida bowhunters will be privileged to enjoy a combination of early season and statewide hunting.

The early period is in addition to customarily scheduled annual bow hunts, like those held at Eglin Field and other popular hunting localities. Also, Game Management Areas that may be open in conjunction with the early 16-day statewide hunting period will not require the individual bowhunter to purchase a Management Area stamp; only regular hunting license and \$5.00 archery permit will be needed.

The question now arises; is interest in archery growing or has the sport passed its national popularity peak?

Actually, the sport attracts new devotees all the time. Bowhunting, particularly, is growing in popularity and most state conservation departments are recognizing the sport by designating bowhunting seasons and liberal game bags. These game-protecting agencies have come to realize that bowhunting is "hunting the hard way" and that annual kill figures are never apt to reach the status of real threat to basic breeding stock. In fact, in most

Sweet Sixteen

By EDMUND McLAURIN

states the bowhunters fail to harvest near the allowed quotas. But every bowhunter will tell you that *trying* is great sport! Therein lies bowhunting's mass appeal.

Local and regional target tournament activity tends to flare and recede in accordance with enthusiasm of resident clubs. Where there is a good range and obvious member enthusiasm, there is sure to be weekly shooting as well as inter-club competition.

The national tournaments, drawing as they do from all sections of the country, seem to hold their own. As fast as some of the veterans withdraw from serious competition, newcomers take their places on firing lines. The sport certainly does not suffer on the national tournament competition level.

Automatic type archery lanes, as separate facilities or in conjunction with already established

bowling alleys, are proving to be a boon for archery. Their availability means that archery, like bowling, can be a regularly enjoyed night-time sport, as well as outdoors by day.

On these automatic lanes, target mats 5-by-8-feet are suspended from metal rails that run from firing point to far end of range. Colorful targets from six to 48 inches in diameter are placed against these arrow-absorbing mats. After all arrows have been shot, the target is moved electrically to the player area for recovery of arrows.

Charge is not by the number of arrows shot, but by the hour of play. Usually, establishments have archery tackle to rent, but most encourage players to bring their own equipment, just as they do their own bowling balls on nights when bowling is the fun fare. Automatic archery lanes are getting more numerous all the time.

Florida archers seemingly maintain a high level of activity. Maybe it is because the state's mild climate makes possible year-around outdoor activity. Maybe it is simply because Florida archers seemingly never tire of friendly tournament competition and bowhunting. Whatever the reason, there is some form of archery activity going on all the time.

Every legal holiday or long week end provides excuse for something special! The site may be Fort Caroline, Leesburg, West Palm Beach, Bartow, St. Petersburg, Fort Lauderdale, Wildwood, Jacksonville, Sarasota, Panama City—you name the place; chances are that *some* group is getting in field archery practice or competitive experience. You have only to pin-point the activity and join it.

Besides local club bulletins, Florida archers enjoy their own bi-monthly official publication, **FLORIDA ARCHERY AND BOWHUNTING**, compiled and edited by volunteer scribes from the membership of the Florida Bowhunters' Association. An average issue contains 24 pages of texts and photos. Printing is at 16 North Lake Avenue, Avon Park, Florida 33825.

Of broader subject scope is **ARCHERY**, a national monthly publication serving both the target archer and the bowhunter. Emphasis is on "how to" articles and successful hunting experiences and techniques rather than target tournaments, although the latter phase of archery is well covered. Publisher is the National Field Archery Association, Box H, Palm Springs, California 92262.

Most Florida archers regularly read both publications.

For hunting, the more powerful bows give the flattest possible trajectory to cast arrows, an advantage for long range shots. But for average close range bowhunting, the archer will be better off with a bow he can control with ease. Most Florida archers use hunting bows drawing somewhere between 38

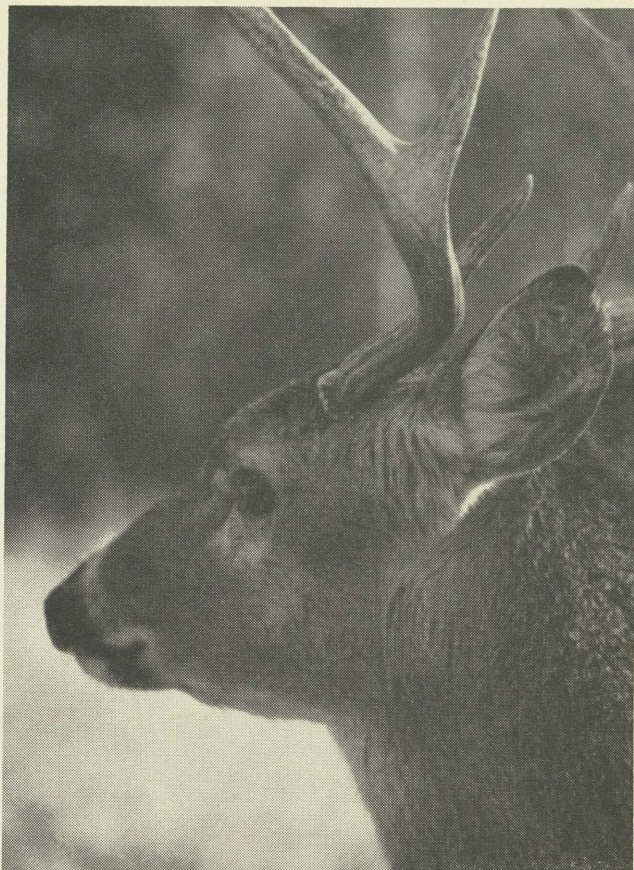


Photo By Wallace Hughes

The most challenging target available for bowhunters is the white-tailed deer. Needed to bag a deer is right equipment, lots of practice, deer-woods experience and plenty of luck.

and 55 pounds; the smart ones take care to see that bow weight does not exceed their limit of confident muscular control. Even a 35-pound bow will kill a deer at short range if a sharp arrow is used. In fact, razor-sharp arrows are a big factor in hunting success, whatever the bow weight.

Generally, a quality hunting bow will cost less than a tournament grade target bow, but neither can be considered cheap. A poor quality bow and cheap arrows are almost worthless for serious archery.

Elementary archery tackle for bowhunting includes a good bow; at least a dozen quality broad-head arrows matched to the bowhunter's length of draw and in spine (stiffness) to the full draw weight (power) of his bow; a practical quiver; extra bowstring and bowstring wax; a small file for sharpening cutting edges of arrows; a set of bowstring silencers; an arm guard; a finger tab or shooting glove, and camouflage clothing.

Supplementary items can include a bow sight, a portable hunting blind, small camp stool and deer lure or other game attracting scent. All are practical.

Because it is often difficult for a beginner to keep a nocked arrow from being bumped or shaken off
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If a good shot—and lucky—the bow and arrow hunter can boast of "winged game" success.

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its supporting shelf while waiting for a shot, a Nelson arrow holder is frequently used. The device holds a nocked arrow in place on arrow shelf, but drops out of the way when the arrow is fully drawn. The more experienced bowhunters seldom use an

arrow holder, but do carefully place a loaded bow across forked sticks in ready position during a long wait for game to appear.

Fine points of applied technique include relaxed bow-holding hand; infallible use of the same nocking point; straight line shooting stance (from bow-holding hand through shoulders and right arm to the right elbow) when at full draw; a consistent arrow anchor point on the face; correct aim; maintained full draw without arrow creep; relaxed finger release (of the arrow) and follow through with body and aiming eye on each shot.

If you are a beginner, you can get a good idea of step-by-step procedures by either reading a good archery instruction manual that is replete with sequence photos or by seeking supervision of an expert. It is most beneficial to do both, in recommended order.

To be consistently successful in his bowhunting, the archer must be close to his targets when he shoots—the closer the better. Even expert bowmen confess to a high percentage of misses when game is 35-50 or more yards away. Shots at ranges of thirty-five yards or under account for most game kills.

Wild, wary game is usually difficult to noiselessly approach within sure shooting range. Unless one has experience in silent stalking, perhaps the next best hunting technique is to occupy a blind overlooking an established game trail and wait for game to put in appearance.

Archery Season and Hunt Information

In addition to regular Florida hunting license, a \$5.00 Archery Permit is required for bow and arrow (only) hunting, as follows:

a) Statewide Archery Season: September 16 through October 1.

b) Wildlife Management Archery Hunts:

1. Aucilla Area: October 7 & 8; 14 & 15; 21 & 22; 28 & 29.
2. Fisheating Creek Area: September 16 through October 1.
3. Camp Blanding Area: October 21 & 22; 28 & 29;
November 4 & 5.
4. Citrus Area: October 14 through 29;
November 4 & 5; 11 & 12; 18 & 19;
November 23 through 26;
December 2 & 3.
5. Guano River Area: January 20 & 21; 27 & 28;
February 3 & 4; 10 & 11; 17 & 18.
6. Ocala Area: September 30 through October 8.
7. J. W. Corbett Area: September 16 & 17; 23 & 24;
September 30 & October 1.

There will also be an Archery (only) Hunt on the Eglin Field Area: October 21 through November 5.

The \$5.00 Archery Permit is not needed for the Eglin Field Management Area archery hunt. Instead, bow and arrow hunters must purchase an Eglin Field Air Force Hunting Permit (\$4.00) valid for entire 1967-1968 hunting season schedules on the military reservation (in addition to regular Florida license).

Possession of firearms or crossbows during the early archery season or Management Area archery (only) hunts is prohibited.

A blind in which the already camouflage-attired bowman can sit and patiently wait for game movement gives the hunter the better odds. It can be made from either natural brush or camouflage netting, or both. A blind should never be directly on a game trail, but slightly to one side and within sure-shot range.

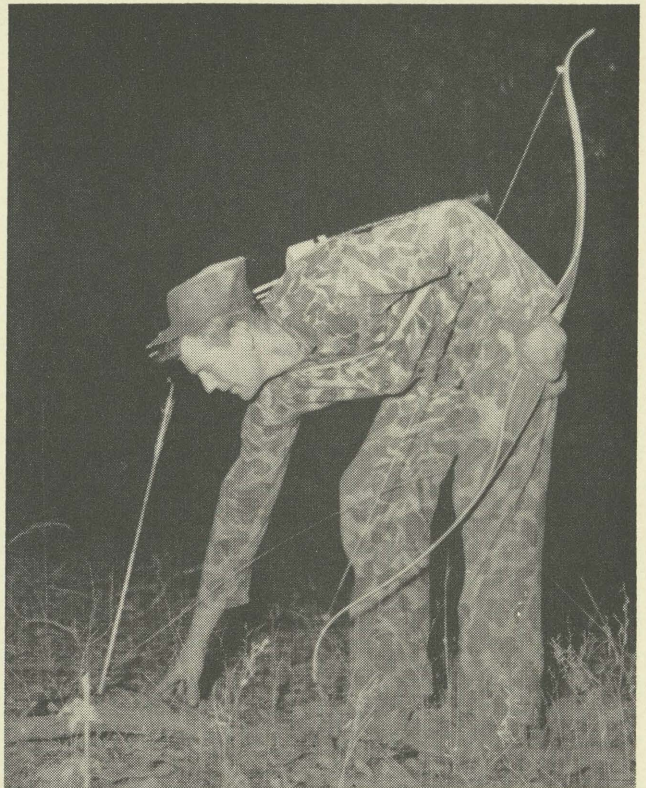
A blind can be thrown up almost anywhere if the hunter utilizes an old beach umbrella frame and some camouflage netting. The umbrella frame is merely opened and placed on its side and the netting draped over it. Clip-type clothespins, pre-camouflaged with daubs of green and brown paint, will hold the netting on the frame or tie tapes can be provided.

Another method requires a 3-by-12-foot length of camouflage netting, with four hemmed, steel rod-receiving sleeves at four foot intervals along the netting's length. Four strong, narrow diameter steel framing rods, each 40 to 42 inches long and pointed at one end, will be needed.

To set up the blind, a rod is slipped through the hemmed sleeve at one end and pushed into the ground. The other rods are placed in their sleeves until a square-U shaped blind is created, measuring 4-feet on each respective side, and 4-feet wide of front, but with the back open. The bowman can alternately sit and kneel within this enclosure and find desired concealment from sharp-eyed game, yet have sufficient room in which to nock, draw and

A short-cut to real archery hunting skill is to read up on applied techniques, then have an expert supervise practice.

Photo By Bill Hansen



A bowhunter retrieves a downed fox squirrel taken in dense forest land. The Florida archer can seek a variety of game this season, according to hunt regulations and bag limits.

release an arrow without snagging. When a change of scene is desired, the component rods and netting bundle compactly.

Whether umbrella or rod-formed blind, addition of a few cut branches to front and sides will create a more natural looking blind. A small pair of Seymour-Smith #118 "Snap-Cut" pruning sheers will snip needed brush with far less noise than by hand breaking or slashing with a knife. Some of the cuttings can be hung on the blind and other pieces can be stuck in the ground around its base.

Streamers of Spanish moss, if conveniently at hand, make good embellishment. If the erected blind sags a little in places—fine! You don't want straight line design, anyway.

Deadly accurate target shots are not necessarily the top performers at unknown ranges afield. Beginners can take heart in the knowledge that, during the calendar tenure of past annual bow hunts in the Citrus Game Management Area, numerous beginners have bagged a buck—sometimes on the very first trip and without preliminary practice.

Bowhunting is not easy, but it does have an ever present element of luck associated with it. Your very next trip may be the lucky one. Consider the case of a well known Florida bowhunter who hunted expertly all season without even seeing a buck, only to have four different bucks approach within shooting range the last week and within a three hour period! It could happen to you. ●



Wilderness cruise schedule includes a late evening voyage to observe the colorful flights of beautiful winged "exotics" as they head for nightly roosting sites on Chokoloskee Bay islands.

Wilderness Cruising

for unusual adventures probing the primitive tropics amidst tranquil mangroves

A COMBINATION OF Huck Finn raft cruises and standard boat tours are opening the mysterious mangrove wilderness of the western sector of the Everglades National Park to Mr. and Mrs. John Q. Public.

Ever since the establishment of the National Park in 1947, the western sector of the sprawling, 2,300-odd square mile Park in south Florida has been virtually unreachable for the average visitor.

If you were a mangrove-wise fisherman or boatman, or one of the still active 'gator poachers, you could safely penetrate this unusual water wilderness, but as far as Mr. and Mrs. John Q. Public were concerned, the mangrove wilderness was inaccessible.

Now this is changing. The National Park Service has opened a modernistic Visitors' Center at the little town of Everglades—the western gateway to the Park; has installed a self-guided trail on Sandfly Island, and, through concessionaire Sammy

Hamilton, Jr., has arranged three different boat tours, operating on regular schedules. The days of the unreachable park are dwindling.

Keys to the enjoyment of Uncle Sam's most unusual park are the three boat tours, each presenting a different view of the mangrove country. Each is a different length, too. Many are finding it well worth while to take all three trips.

Undoubtedly, the most unusual trip is the Huck Finn raft cruise. Hamilton, a local resident who knows the mysterious, twisting waterways like Ol' Daniel Boone knew the Kentucky wilds, developed 20th century versions of Ol' Huck Finn's raft—naturally much more modern—powered by 50-hp outboard motors. Realizing standard draft boats couldn't operate in the shallow waterways, Hamilton devised his Huck Finn crafts.

Purchasing ready-made, aluminum pontoons, he installed 8-by-20-foot decks with 42-inch high, aluminum railings, and installed seats. His 20th cen-

tury raft carries 18 passengers at a speed of 15 miles an hour, and needs only 10 inches of water. They're as unique as the waterways they cruise. You never forget your first trip.

Leaving the new Park Docks on the Chokoloskee causeway, you scoot under Half-Way Creek bridge and begin an unusual adventure. You head into the mouth of Turner's River, birds spooking as you maneuver, your prop sometimes digging mud if the tide is out. Many a boatman watching envies your raft's ability to negotiate the tidal flats. Turner's River is named for a Seminole Indian War scout who homesteaded on the stream in the 1870s.

You enter terrain little changed from a century ago. Chugging up Turner's River, you feel the atmosphere of the primitive, mangrove country, where plume hunters, 'gator poachers and wanted men operated near the turn of the century. There're still 'gator poachers, but the plume hunters and wanted men are gone.

The mangrove wilderness range of birdlife differs according to time of the year—and water conditions. A yellow-crowned heron, right, can often be seen while cruising. Intriguing nature voyage, below, is heading into "tunnel" of mangroves.

By MAX HUNN



Photo By Leonard Lee Rue III



Continuing upstream, you pass shell mounds dating from the days of the Calusa Indians (and possibly earlier). These mounds, believed to be the results of thousands of clambakes and oyster roasts, now comprise some of the highest land in the area, and were instrumental in the establishment of the early settlements. Chokoloskee Island is such a shell mound, and its height led to its settlement late in the last century. Experts theorize that perhaps the Indians built the mounds for hurricane protection, although there're no written records to support such a theory. Anyway, it took some real clambakes to build 20-foot tall shell mounds.

Alligators are infrequently seen along the river. Poachers have killed too many. Bird life ranges from moderate to plentiful depending upon the time of year, and the water table back in the mangrove creeks. Opportunities are good for seeing American and snowy egrets as well as scarlet and wood ibis. Anhingas (water turkeys) are seen as well as cormorants. Ospreys nest in tall trees, and their nests are sometimes mistaken for eagle's aeries. Commonly observed are the herons—yellow crowned night, Louisiana and Great White. Infrequently, you may spy a shy (sometimes bold) 'coon peering from the mangrove maze. Always a

(Continued on next page)



National Park gateway for wilderness cruising is located in lower west coast town of Everglades.

(Continued from preceding page)

prize is a glimpse of the rare roseate spoonbills, once almost extinct, but now slowly coming back in South Florida.

Then you turn into the left hand fork of Turner's River to begin the most primitive portion of the cruise. Mangroves intertwine overhead to form a green tunnel, usually dark, and at other times surprisingly light. It's a strange, remote land where oysters grow on trees, where the stillness of the primitive is shattered only by the roar of the out-board motor.

Twisting and turning further through the winding mangrove tunnels, you suddenly come out on man-made canals dating from the days when promoters tried to convert the wilderness into real estate lots. They failed, but the scars of their drag lines remain, although nature's gradually obliterating them. Then you reach Half-Way Creek and begin the return trip to the Park Docks.

From June through October, a special sunset cruise operates to Chokoloskee Bay to watch thousands of birds roost nightly on the tiny mangrove islands. While anchored you see as many as 20,000 birds make these night flights, returning from a day spent foraging inland. It's a spectacular wildlife show.

Shortest of the three trips is the one to Sandfly Island, lasting an hour and 15 minutes. However, it gives a glimpse of what the pioneers encountered near the turn of the century, when the remote area, with only a sea link to the rest of the world, was first settled. After a short cruise across Chokoloskee Bay, you land on Sandfly via a new

dock and explore the 75 acres of high ground surrounded by a typical saltwater mangrove swamp.

As you follow the self-guided trail, you see the ruins of the two-story, farm house built in the early 1900s, and it's hard to believe this ancient shell mound could produce a tomato crop worth \$4,000. Yet "Uncle Charley" Boggess, pioneer farmer and later famed fishing guide, sold his crop for that 50-odd years ago. He had to ship it by sea to New York via Key West. Also along the third-of-a-mile trail, you see excellent examples of the famous mangroves—the tree that fights the sea; gumbo limbo trees and a huge tamarind.

For a deeper probe of the outside islands, you can take the two and a half-hour, 10,000 Island trip, aboard the 49-passenger diesel-powered conventional tour boat. This cruise departs from the Visitors' Center and eases across Chokoloskee bay and follows twisting Sandfly Pass to the outside islands on the Gulf of Mexico. You twist and turn for 15-odd miles through the mangrove isles finally reaching Kingston Key, where you debark for 45 minutes of island exploring and shell collecting on the fine, sand beach, a rarity in the mangrove country. After the island stop, you cruise into Indian Key Pass, thence to the mouth of Barron River and there turn into the new channel leading across Chokoloskee Bay to the Park Docks.

Any or all of the boat tours afford intriguing glimpses of the mysterious mangrove wilderness. Now, you don't have to be an experienced fisherman to sample the mangrove country in safety in the western sector of the Everglades National Park. ●

Increasing numbers of sightseeing and back-country fishing fans are trying canoe-travel adventures to "get away from it all"

By ELGIN WHITE



THE RED CHINESE might think they're somebody now that they've exploded a hydrogen bomb. Yeah . . . darned clever, those Chinese, but the cleverest people in all history, if you check with some avid boating fans, were the Indians of North America. They invented the canoe.

And when you talk to a canoeing buff, you're talking to the same type fanatic as a "trueist" fisherman or a one-handicap golfer. As far as a canoeist is concerned, there just ain't no other kind of boat worth talking about.

You sorta think these people must be some kinds of nuts until you try a canoe yourself one time. Then you get a bit nutty yourself.

I will be the first to admit that I like my boating on the comfortable side. I like a motor to do the work. When first approached about taking a canoe jaunt down the Wacissa River near Tallahassee, all I could think of was my achin' back.

When I saw those pretty fiberglass canoes, by John Cassady from his Seminole plant in Longwood, though, I'll have to admit it was too tempting to pass up. So I agreed to chance it.

After a good night's rub-down and several hours on the parallel bars, I was ready to go.

There was a two-fold purpose in this first-time-ever canoe jaunt I wanted to make. First of all, I really did want to do some canoeing. Secondly, there are many places in this magnificent state of

ours where canoeing is out of this world and where other type boats just might as well forget it.

Anyone who can load a canoe on top of his car and point that vehicle toward one of the many springs in Florida, for example, can get the thrill of a boating lifetime.

The spring runs are sometimes small streams and sometimes wide rivers, but nearly all of them are simply ideal for one-way trips. And I do mean one-way. You can go downstream on these idyllic waterways all day long, as the currents, which range from gentle to fairly swift, do all the work going that-a-way. All you gotta do is guide and keep the canoe in mid-stream.

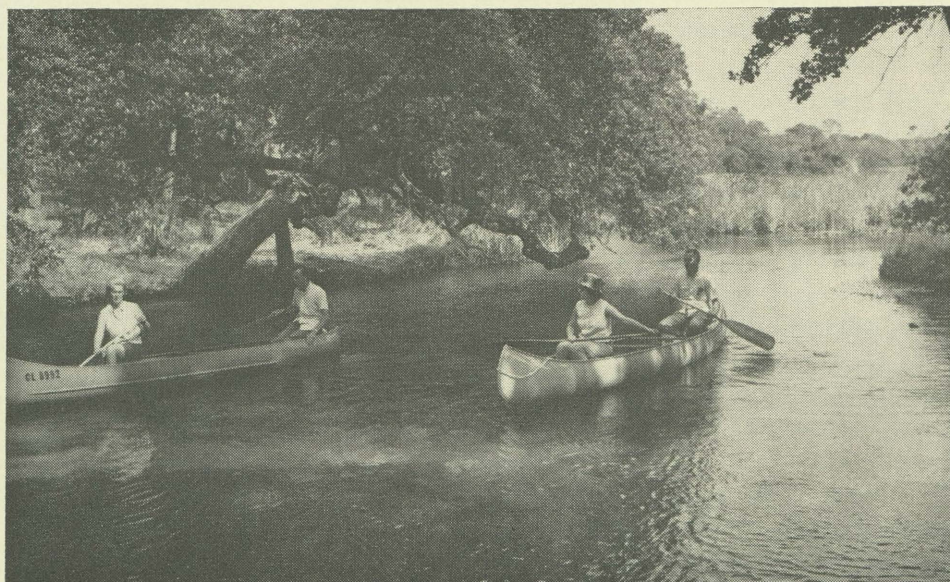
But paddling back upstream, you're liable to find yourself in the same predicament as the kid on a boat in the rapid waters of Minnesota who paddled a foot forward and two feet backward.

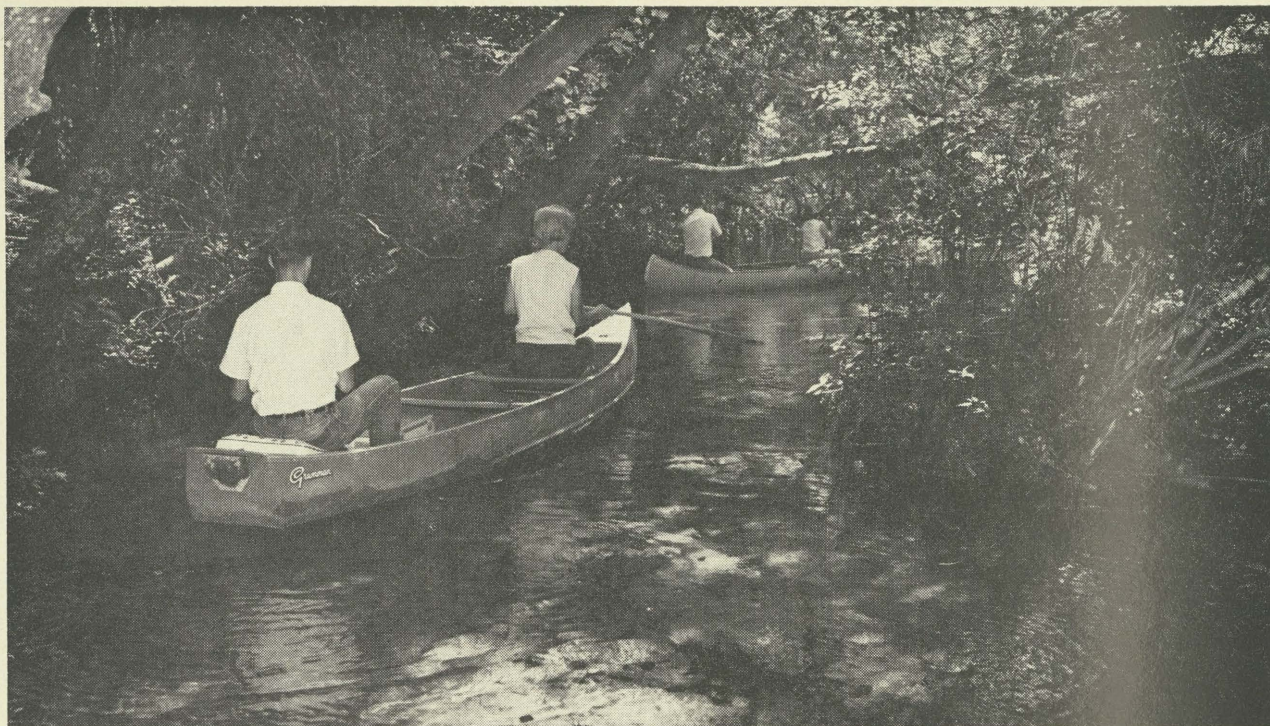
Real canoeists prefer the spring runs because the other boats and especially the cowboys are just not around. Man, is it quiet!

We took off on the Wacissa and went one-way for about seven miles down that gorgeous river. The Wacissa is one of those wild Florida rivers that hardly anyone knows about except 'gators and turtles. It flows ever so gently down a winding path to the Aucilla River and from there into the Gulf of Mexico. We didn't go too far on that

(Continued on next page)

The peaceful, scenic beauty found along Florida "spring runs," like this view of Juniper Springs, are perfect for a canoe-travel buff. Canoeing "opens" wilderness areas hard to approach by other means.





The "canoe country" description often means a "deep back-woods" voyage.

(Continued from preceding page)

first excursion because the four of us who went in the canoes were not exactly experts!

The trip was uneventful as to incidents, but it was a complete scenic joy. Nothing can compare with paddling down a beautifully tropic stream like the Wacissa with nothing but the dip of the paddles twirling into the water to break the magnificent spell of the countryside around you. Listen, if you haven't tried a canoe yet . . . get on the bandwagon! This is boating at its finest.

We have found that canoeists in Florida prefer springs' runs rather than just down a river because, as mentioned earlier, they have the places to themselves, and because the clear, cool, smooth running waters reveal shimmering landscapes of ferns, graceful grasses, fish and turtles beneath the surface.

In planning a canoe trip down any of several Florida spring runs, you must figure on having transportation for yourself and canoe at the end of the run for the return trip. Most of these runs go for about four to seven miles, and the following list of spring runs compiled by canoe enthusiast Nancy Brower, are the most popular in north and central Florida:

Juniper Run—This narrow, twisting stream is perhaps the most famous canoe run in the state. It is a bit of a challenge, Nancy reports. The creek flows from a green glen in the Ocala National Forest, through unspoiled wilderness to Lake George. Canoeists end their Juniper Run trip at the bridge on State Road 19, where a roadside park

provides parking for the return vehicle. Canoes may be rented at Juniper Springs campground for this seven-mile leg of the Juniper Run. Trip takes about four hours.

Alexander Springs Run—Though this stream is also in Ocala National Forest and not far from Juniper Run, it is completely of different character. It doesn't have the narrow, twisting turns that Juniper has, the waters flow through a wider, deeper channel, and much straighter. And, unlike Juniper, there is a touch of civilization along the banks at a spot or two, then the run flows back into deep wilderness. The end of the Alexander Springs run is a Forest Service fire trail difficult for a vehicle without four-wheel drive to navigate. Canoes also may be rented at Alexander Springs.

Silver Glen Springs Run—If you're looking for an all-day trip, forget this one. It is only a half-mile long, but links a beautiful springhead, where camping, picnicking and swimming facilities are available, and huge Lake George on the boundary of the Ocala National Forest. Unlike most springs' runs, canoeing upstream is easy because prevailing winds across Lake George give the craft an extra boost. Canoeists will encounter motor boats here, but high speeds are discouraged. The canoe run is on private property, but canoes may be rented or launched for a nominal fee.

Rainbow River—The effluence of Rainbow Springs near Dunnellon flows into the Withlacoochee River via a beautiful seven-mile stream called Rainbow River or Blue Run. The underwater scenery is especially spectacular in the first mile or so, which is punctuated with smaller

springs and one awesome chasm from which water and white sand boil in a perpetual underwater snowstorm. Once out in the springs area proper, the canoeists will encounter motor boat traffic, for there are homes on one side of the river. Canoes may be rented at the springhead, which is on private property. Persons planning to launch their own canoes should secure permission from Rainbow Springs' waterfront manager.

Wakulla River—Wakulla Springs, which has the world's largest flow of water from a single fissure in the earth, is located on private property. Canoes may be launched downstream on the river at the bridge on U.S. 319 south of Wakulla Springs, and return transportation parked near the bridge on U.S. 98. The approximately five miles between these two points is wild and gorgeous country. The river is deep, with waving grass a distinguishing trademark of the waters. Canoeists must watch for the main current, because false channels (no current) leading nowhere add to the adventure of the trip.

Wacissa River—This is where I had my first canoe adventure, and it is truly a beautiful river. A cluster of springs south of the community of Wacissa in Jefferson County forms the river that flows into the Aucilla near the bridge on U.S. 98. Shallows and rocks discourage motor boating on the Wacissa, but this is ideal country for canoeists. About a mile downstream on the left there is a huge spring that empties into the main river via a short run. The round basin formed by the spring is so deep it appears bottomless. . . .

Low Bridge! This is a typical example of how canoes can make it through beautiful back-water country that is difficult to penetrate with larger powered craft.



On a small island about one mile downstream, sharp-eyed collectors may see bits of pottery from the days the Indians used this island as a campsite. Although the current, which is pretty swift, makes paddling upstream hard work, it is not impossible. A round trip to this first island is recommended, for there is no suitable place downstream less than a half-day's journey away to terminate this particular trip.

Adventuresome canoeists have made the 15-mile trip from Wacissa Springs to Goose Pasture park, where vehicles may be left, or have gone on to the confluence of the Wacissa and Aucilla near U.S. 98. However, let us remind strongly, this trip is for experienced canoeists only, or groups with an experienced guide, for there's a small dam to negotiate and the channel becomes extremely narrow, overgrown and elusive.

These are but a few of the more outstanding canoe runs in Florida. There are, of course, many more, and I'll probably be getting letters from canoe buffs that say something like . . . "why didn't you mention Gullywash Creek?" or some other similar explosives, and believe me, soon as I find out about Gullywash Creek, I'll mention it.

There are even top rivers in the state, such as the Suwannee, where canoeists can have themselves a ball paddlin' Madeline home, making sure to have all the arrangements, such as waiting transportation, at the terminal point. The Suwannee, like other streams, is pretty tough going back against the current.

I can't say that I have become a real canoeing buff on the basis of a couple of trips, but I can tell you it is an exhilarating experience, and I, for one, would like to try these babies on a river like the Suwannee . . . or the Apalachicola . . . or even the St. Johns from Palatka south.

Canoeing can get you to places you just can't get to from here. I have found too, that more and more back-country fishing addicts are switching to canoes, with special brace attachments on one end to support a small outboard.

Before embarking on any canoe trip, however, let us advise that you check on all local water conditions. While springs' flow is fairly constant, rains and drought do affect water levels downstream. Narrow streams spanned by low-hanging trees may become impassable when the water is high.

Local authorities, too, can advise on routes of local streams and rivers. Some areas, like in the 'Glades, appear to be ideal canoe country, but unless you're an Indian or have an excellent charting of such areas, be pretty cautious.

Canoeing is great for this time of the year (or for anytime of the year, actually) so give it a go. These Indians knew what they were doing. ●

Alligator Gar

By GENE SMITH

WILDLIFE OFFICER W. A. (Andy) Bowles, Panama City is an expert alligator gar fisherman on his time off and hopes fishing for the monsters may become a popular sport in Northwest Florida rivers.

"There are plenty of them in the Choctawhatchee River," he says, and proves it by hauling out specimens like the 107-pounder in the accompanying photograph, which measured 5-feet 9-inches in length and 35 inches around the middle. Others have ranged from an estimated 120 pounds down to 70 pounds.

The alligator gar (*Lepisosteus spatula* to biologists) is a toothy, predaceous, flat-nosed fish, the largest found in American fresh waters except the Atlantic sturgeon. Its snout looks very much like an alligator's. They weigh over 300 pounds in their primary range—the Mississippi and Ohio rivers. (The tackle record is 279 pounds, caught in the Rio Grande River in Texas.) They occur westward to Mexico and eastward to Bay, Washington and Holmes counties, Florida.

While providing considerable sport fishing in Louisiana and other Mississippi drainage states, Florida fishermen have been slow to take advantage of this tackle buster's tremendous potential although a few have fished for them for years.

Bowles has spent a year working out his own method for catching alligator gars. He uses fresh mullet, 2 and 3 pounds each, for bait, a 6-foot deep sea rod, and a Penn 209 reel loaded with 50 pound test monofilament line. He scales the mullet and removes the dorsal (back) fin to make it more inviting to the gar-about-to-dine. He uses a fairly heavy treble hook and a 4-foot soft, braided steel wire leader, having discovered that single strand leader makes the fish drop the bait.

Anchoring in mid-stream opposite the mouth of a tributary creek or river, Bowles hooks the mullet near the tail and casts downstream into the channel. He fishes on the bottom. A swivel helps to keep the bait from spinning.

When the gar takes the bait Andy pulls up anchor and floats along with the moving fish, paying out plenty of slack line. This gives it plenty of time to "position" the mullet for swallowing and also prevents fouling in the anchor rope when he starts his runs. The hook is set in several hard jerks. Then the fun—and work—begins!

After 40 minutes to an hour Bowles can bring the tiring battler alongside. He recommends extreme caution at this point because the monster may snap at his adversary with his last bit of strength, though no authenticated record of an unprovoked attack on man is known. A pistol ball in

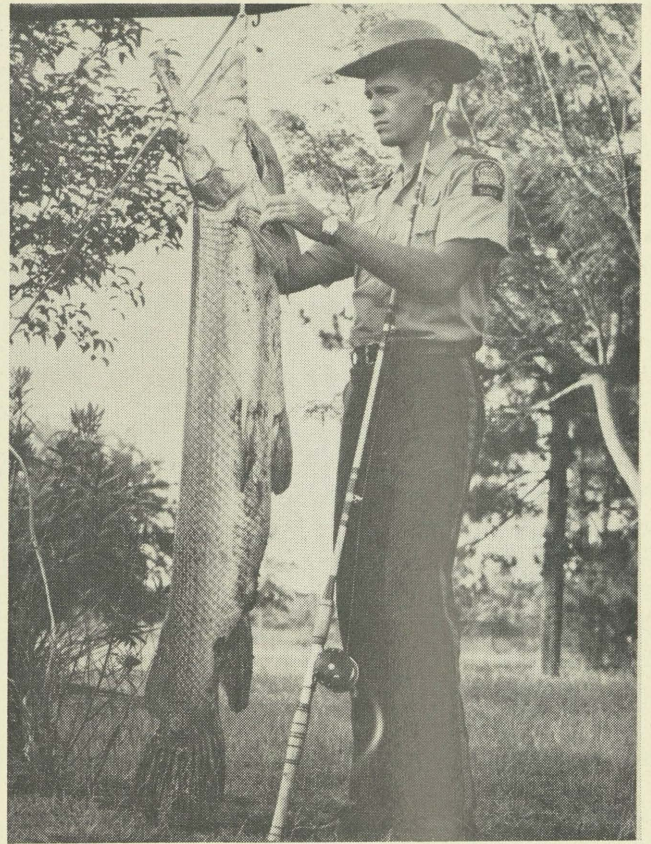


Photo By Art Runnels

A hefty "man-size" 'gator gar (107 pounder) is displayed by Wildlife Officer W. A. Bowles, who stands 6-feet 2-inches tall—almost "eye-to-eye" in length-height comparison. The monsters he takes are used in exhibits and fishery research.

the head usually quiets him and he may then be gaffed and pulled aboard, which may require two men.

Because of the element of danger in dealing with a creature of the 'gator gar's size, strength and mean disposition when hooked, Bowles wisely fishes for them only during daylight hours.

Besides the Choctawhatchee watershed, alligator gars are found in the Escambia, Blackwater, Yellow, and the Shoal rivers. They have also been recorded in brackish and even in Gulf waters.

What does he do with such a creature after it's conquered? Andy has supplied live specimens (minus the pistol ball, of course) to an educational wildlife exhibit at Panama City Beach. And, alligator gar flesh is edible, although the roe of all gars is highly toxic. Gar is sold in many parts of the United States, being particularly well known in the French Market at New Orleans.

Says Bowles, "I tried it and it had a fairly good flavor but was a little tough fried. I might have cut my filets too thick. Broiled or used in a chowder it might be better."

Regardless of the merits of its edibility, there is nothing quite like rod and reel fishing for the alligator gar.

Try it! ●

Recoil Facts

MUZZLE FLASHES

Big game guns often develop heavy recoil, but a combination that includes proper gunstock and recoil pad will lessen the fury

By EDMUND McLAURIN



MANY SHOOTERS would score higher on paper targets or kill more game if they did not have anxiety about anticipated gun recoil. A better understanding of how recoil develops, and ways to lessen its effect, can improve one's shooting, whatever its form.

Widespread is the mistaken belief that entire recoil takes place only *after* the bullet has left the barrel. This is not true, because the same force that propels the bullet is at the same time exerting effect on the gun.

A .30-06 sporting rifle weighing 9 pounds and possessing a 24-inch barrel, fired from sandbag rest, will have moved about .07 of an inch in recoil by the time the bullet reaches the muzzle. But as any .30-06 caliber shooter knows, there is considerably more total backward thrust of rifle against shoulder than a mere .07 of an inch! Only a fraction of the total developing recoil is felt by the shooter while the bullet is passing down the barrel.

Greatest powder gas acceleration, recoil and gun movement develop immediately after the bullet emerges from muzzle and expanding shock waves

develop. It is this last stage, muzzle exit gas blast and sound wave shock that, together, accounts for most of the recoil that the shooter experiences.

The developed energy of recoil is transmitted to rifle and partially absorbed by the shooter's supporting arms, by total weight of the gun itself, by attached recoil reduction devices like rubber recoil pad and muzzle brake, and by the shooter's shoulder.

It is theoretically possible to reduce felt recoil to the barest minimum by increasing the total gun weight that recoil must affect. This is not practical, however, for shoulder and arm supported firearms.

Fortunately—when a firearm is pressed tightly against the shooter's shoulder and the comb of the stock properly supports the firer's face, part of the weight of the shooter's body can technically be added to the gun's weight and the effect can be compared to using a heavier gun. Simply, there is more connected mass to oppose recoil and absorb considerable of it.

At this point it is in order to differentiate between two kinds of recoil—*free recoil* and *recoil energy*.

Free recoil is the recoil velocity of gun movement resulting from firing of contained load, with no human body or other mass to oppose rearward thrust.

The late Major General Julian Hatcher, an authority on firearms' recoil, took pains to point out that "recoil velocity of the average high power rifle largely stems from the rocket-like thrust of the jet of powder gas that rushes out at high speed as soon as the bullet emerges from the barrel. *Developed recoil energy is proportional to the square of the recoil velocity* (not to be confused with the bullet's muzzle velocity)."

In ballistic laboratories, free recoil of a high power rifle and given load is usually determined by hanging the weapon unsupported except by parallel wires. The velocity of recoil firing is measured by tuning fork, high speed camera or a dynamometer.

In testing shotguns and shotgun load performance
(Continued on next page)



The hunter who has taken the time to obtain correct gunstock fit, and has practiced, has the ability to bring his gun to shoulder in a natural manner when game is spotted, and enjoys successful sport afield.

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ance, ballistic engineers customarily fire different shell loads in a special fifty pound gun hung on parallel wires and free to swing in a wide arc. From noted results, the degree of developed recoil can be determined for any given gun weight and load.

Recoil energy is the exerted rearward recoil thrust that is measured in foot pounds of energy. For some calibers and bullet loads, recoil energy figures run relatively high.

A 12 gauge, 7½ pound shotgun, with 26-inch barrel firing a single shell containing 1⅓ ounces of shot and ¾ drams equivalent of powder will develop approximately 22½ foot pounds of recoil. But some shotguns and their loads develop as much as 32 or more f.p.'s of kick-back.

Authority Jack O'Connor repeatedly emphasizes that "recoil increases as either the velocity or weight of the shot charge is increased, provided the same gun is used. Also, the lighter the gun, the more the kick; the heavier the bullet or shot charge and the powder charge, the more the kick."

In the excitement of hunting most shooters momentarily forget about recoil and make the necessary shot without recoil anxiety. When firing a heavy recoiling firearm from a rest the same users will likely be acutely conscious of recoil and perhaps fear its consequences.

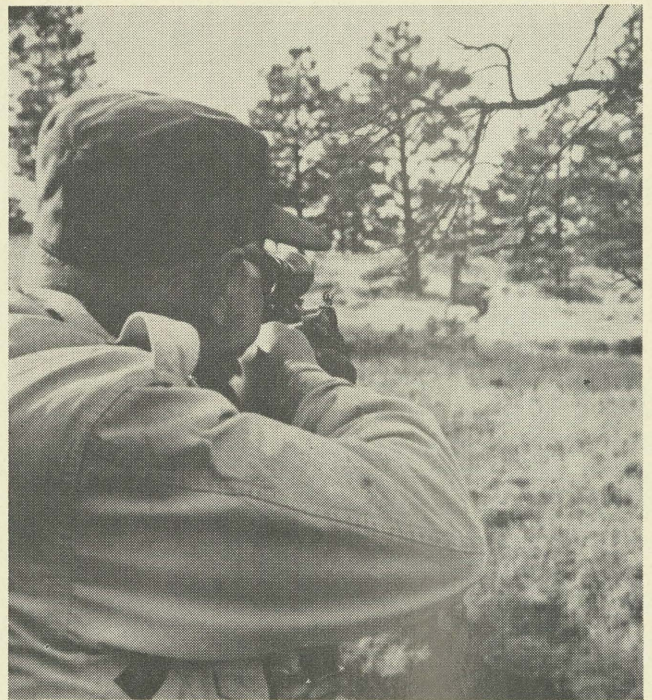
Sight-in a 12 gauge shotgun with rifled slugs from sandbag or bench rest and you will immediately note the difference between that form of firing and field shooting of the same rifled slug loads from offhand position! The same recoil is there; you just feel it differently.

A shooter who fears anticipated recoil is almost certain to either blink his aiming eye or, worse still, flinch as the shot is fired. For aiming accuracy, the shooter should be able to look right through recoil and see both his sight alignment and related target position at instant of firing. This is termed "calling the shot."

A short barrel puts muzzle blast closer to the shooter's ears; consequently, makes recoil seem greater.

Besides increase in muzzle blast, bullet velocity is invariably reduced as barrel length gets shorter. Surprisingly, a .308 bullet fired from a 26-inch barrel (the trade standard by which most bullet velocities are measured) proves a bit more powerful than a .30-06 bullet of identical weight fired from a 20-inch barrel!

You cannot compensate for velocity loss from a short barrel by packing the cartridge case with more powder. Pressures will increase rapidly, but bullet velocity increases little, if any. There is a limit to the quantity of propelling powder a rifle barrel can handle. Loadings must stay within this limit for best ballistic performance. Further, you cannot use a barrel shorter than 22 inches for high



In the excitement of hunting most shooters will make necessary shots forgetting about their recoil anxiety.

power calibers like the .30-06, .308 and .270 and not expect jarring muzzle blast.

Although there are mechanical aids to be had, the seeking of proper gunstock fit is the first and most logical step to take in coming to more friendly terms with objectionable gun recoil.

Too short a stock (length of pull) can make gun recoil abominable, because the thumb that encircles the small (grip) of the stock usually is bounced into harsh contact with the shooter's nose or face. This expected blow in the face does not help one's shooting. A too short stock can also contribute to a nasty eye cut if a high power rifle equipped with short eye relief hunting scope is fired at high angle elevation, as can occur in mountain country hunting.

To overcome the condition of too short a stock, a Pachmayr rubber recoil pad and decorative spacers should be fitted to butt end to bring length of pull to correct measurement.

Correct drop at comb and shape of comb, along with a properly shaped cheek piece, are vitally important to the successful use of a rifle of heavy recoil. When correct for the individual, these gunstock features aid materially in reduction of felt recoil.

A straight comb or, better still, a comb that slopes forward almost imperceptively, will tend to put recoil in a straight line to shoulder, where it is more easily absorbed than if allowed to find expression through rotary rise of the entire stock, and a blow to the shooter's cheek by an improperly shaped comb that fails to give firm support to the face during firing.

Keep in mind that the only part of the stock comb of any practical value—whether regular or Monte Carlo style—is that surface which contacts and supports the shooter's face as he aims and fires.

Preferably, a gunstock should be made as straight as possible, with the minimum drop at heel needed to permit gun butt to come naturally to shoulder. The less difference there is between drop of comb and drop at heel, the less will be the noticeable recoil of the gun. Where drop at heel is markedly greater than drop at comb, a large caliber rifle is almost certain to kick hard, sometimes painfully.

A correctly shaped cheek piece, integral with already correctly dimensioned stock, will further serve to hold the shooter's head firmly and accurately with line of sight.

In addition, there are various mechanical devices and innovations that help tame recoil.

One of the oldest is the rubber recoil pad fitted to butt end of shotguns and big game rifles to provide recoil-softening action between gun and shoulder. Installed pads are of practical value only for the period that they remain soft and unglazed. You can get them in permanent-attaching or slip-on styles.

A gunsling helps to control imparted recoil by tying the rifle and the shooter together. Its value, however, accrues only through proper adjustment and use.

Muzzle brakes fitted to large caliber rifles reduce recoil considerably, but accentuate sound of firing.

Many custom gunsmiths merely machine recoil reduction, gas-compensating slots or holes in rifle barrels in lieu of attaching a Johnson or other well known make of muzzle brake. High Standard did this on a number of its yesteryear target handguns, and still uses a modification in current offerings.

Some of the compensators made for shotguns, like the Lyman-Cutts, and Super Poly-Choke, not only give shot pattern control, but also marked recoil reduction through a gas-dispersing, ventilated sleeve.

Certain current model repeating shotguns were especially engineered to tone down recoil felt by the shooter, through practical gas siphoning or braking action incorporated in mechanical functioning. A notable example is the Remington Model 1100 autoloader in 12 gauge. Its felt recoil is comparable to the average 20 gauge shotgun.

A shooter who takes time to get correct gunstock fit, and who practices, won't have to worry about recoil. His gun will come to shoulder naturally and feel comfortable. Practice will have made him so familiar with his weapon and its vibrant qualities that he will tend to forget about recoil and, instead, be target conscious. On target range he will shoot creditable scores. Afield he will bag game. ●

Hunting Season Notes

FEDERAL REGULATIONS governing shooting hours for mourning dove hunting state "12 o'clock noon—**standard time**—until sunset." This means that in Florida—with daylight saving time—legal starting shooting time is 1:00 P.M. from the season opening date on October 7 to Saturday, October 28, inclusive. With the return to standard time again, effective starting Sunday, October 29, the daily shooting hours will be 12-noon to sunset of each open day of dove hunting thereafter. (The first phase of Florida's season closes November 5; the second phase runs November 18 through December 3; and the final phase, December 16 through January 8.)

Presumably, other states on daylight saving time must make similar adjustments during the period between their dove season openings and the day all clocks and watches are "turned back" one hour to standard time.

AS THE Game Management Division's exotic (or non-native) game investigations continue it is important that hunters know and abide by the regulations protecting non-native birds and animals.

This might settle some arguments: all non-native species of game birds and animals are fully protected except three—pheasant, chukar partridge and coturnix quail. Pheasant may not be taken at any time in the Second (Northeast) and Third (Northwest) Regions, except on licensed hunting preserves. But chukar, coturnix quail—and pheasant in the other three regions, may be taken during the regular quail hunting season only. There is no open season on any other exotic game bird or animal in Florida—and won't be unless an open season for a particular species is set by the Commission.

So it follows that the only legal deer is the old familiar native white-tailed variety. Sambar deer (of Asian origin), which actually are elk, are not legal game if encountered afield. And there shouldn't be much of a chance of confusing the Sambar with white-tailed deer. Sambars grow to well over 500 pounds, and are maned animals. They prefer marshy habitat and are underwater browsers, commonly feeding with their heads beneath the surface of the water. The bucks are antlered but not in as grand a style as the North American elk.

The eventual success or failure of Florida's exotic game program might well depend on whether or not the original stock is given a fair chance to make it—unhelped and unharmed—in the wild.

Starting Next Issue: Summaries of general hunting seasons and Wildlife Management Area regulations.

CONSERVATION SCENE

(Continued from page 4)

did not resort to outright prohibition of interstate sales.

To the best of our knowledge, if the Dodd-Celler bill were enacted, firearms would become the first legitimate article of commerce that an individual could not buy outside the state where he lives.

Pretty rough treatment for a product that, like countless others, is no worse than the people who use it.

Hunt America Time

"THE PROPERTY may be yours but the game on it is mine," say hunters. "The game may be yours but the property, and therefore control over who hunts, is mine," reply the nation's landowners.

Both are right, says The Izaak Walton League of America, the only agency in the country with an active program designed to bridge the gap.

Hunt America Time is a conservation education program aimed at helping both sides. Its ultimate goal is keeping private lands open to American sportsmen on a reasonable "Hunting By Permission Only" basis.

Sponsored by the League in cooperation with the National Sporting Goods Association and Winchester-Western Division of Olin, HAT's slogan is "Respect Private Property—Save Public Hunting."

Briefly, the HAT program works like this: Hunters are contacted and told about the aims of the program. They are instructed in their roles as good citizen-sportsmen and asked to sign a pledge "to be law abiding, to respect the rights and property of others and to be careful with fire and firearms." Signing the pledge entitles each to receive a HAT badge which then becomes his ticket to public hunting.

Landowners are then contacted and told about the aims of the

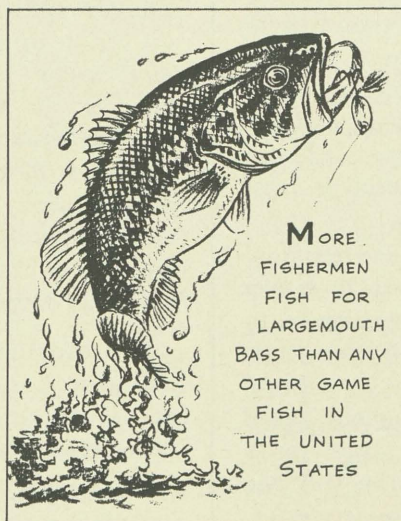


program, too. Leaguers then ask that he permission-post his property, or allow them to do it for him. Signs are furnished, including "Safety Zone" posters for use in areas the landowner deems appropriate.

By recognizing the HAT-badged hunter, the landowner is assured that he will not be brazenly disregarded, that his fences, gates and crops will not be damaged and that his family and livestock will be safe from misused firearms.

Because most hunting by the American public takes place on private land—over 80%, the League reports—the proper conduct of the individual hunter is mandatory if he is to retain his unique privilege. Only in America does the general public have the chance to hunt. In most countries the landowner also owns the game. But the hunter must realize

Nature Notes



that hunting on private land is indeed a privilege, not a right. It must be earned by respect for the landowner's rights.

The poor record of American hunters in vandalism, trespass, careless shooting and burning must be reversed, insists the Izaak Walton League, or public hunting as we know it will be gone within a generation.

Weed Control Agreement

AGREEMENT WAS reached in Jacksonville on continuation of the hyacinth control program jointly operated by the Game and Fresh Water Fish Commission and the U. S. Army Corps of Engineers, according to a recent announcement by the Corps.

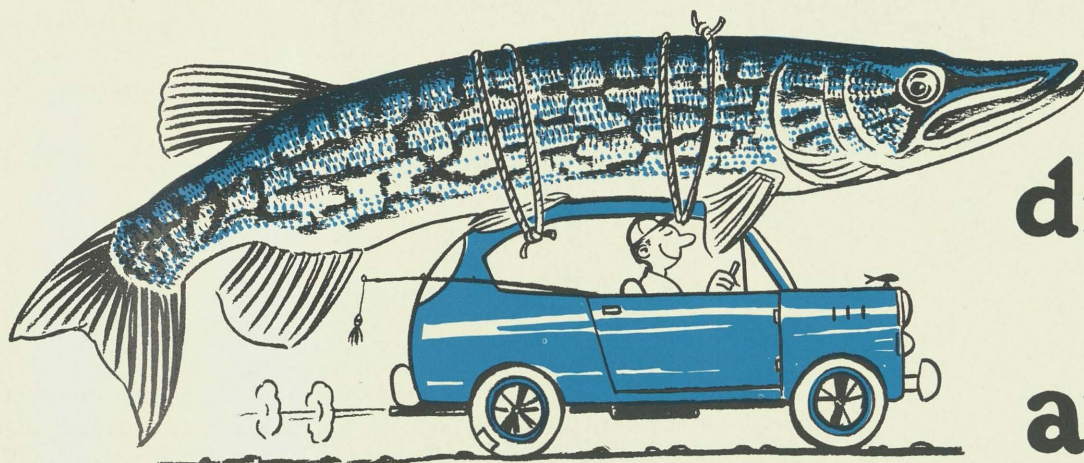
Dr. O. E. Frye, Jr., Commission Director, Tallahassee, says his office is in complete accord on the need to control aquatic plants but noted that a reduction of funds at the federal and state level will probably reduce the scope of the spraying program during the next year or two. Details of the reduced scope are being worked out.

District Engineer Col. R. P. Tabb also agreed to make every effort to assist the state of Florida in researching mechanical hyacinth harvesting devices. All mechanical methods of hyacinth removal have been much more costly than spraying with herbicides. Research is needed to develop a use for hyacinths to make the cost of mechanical harvesting comparable with the use of 2,4-D, the state and federal agencies agreed.

Congress authorized the Aquatic Plant Control Project in 1958. It requires a state agency to pay at least 30% of the cost. The Game and Fresh Water Fish Commission has served as the sponsor for hyacinth control spraying in Florida since 1960.

The state's watersheds are divided between the Corps and the Game and Fish Commission, each of which has spray crews operating almost year-round. ●

For that BIG ONE that



didn't get away

ELIGIBILITY REQUIREMENTS SPECIES

LARGEMOUTH BASS

.....8 pounds or larger

CHAIN PICKEREL

.....4 pounds or larger

BLUEGILL (BREAM)

.....1 1/2 pounds or larger

SHELLCRACKER

.....2 pounds or larger

BLACK CRAPPIE

.....2 pounds or larger

RED BREAST

.....1 pound or larger

All fish must be taken from the fresh waters of the state of Florida, as defined by the Game and Fresh Water Fish Commission. Fish must be caught on conventional fishing tackle, with artificial or live bait, in the presence of at least one witness.

The catch must be weighed and recorded at a fishing camp or tackle store within the state by the owner, manager, or an authorized agent of the respective establishment.

FLORIDA WILDLIFE'S FISHING CITATION

is available without charge, to any and all subscribers to Florida Wildlife Magazine, and their immediate families, who catch any of the fresh-water game fish of the prescribed species and size requirements. Citation, showing recorded date of the catch, will be mailed to the applicant upon receipt of the following application form that has been properly filled out and signed.

Only fishing citation applications received within
90 days from date of catch will be honored.

APPLICATION FOR FLORIDA WILDLIFE FISHING CITATION

The Editor, FLORIDA WILDLIFE

Date _____

Game & Fresh Water Fish Commission, Tallahassee, Fla.

Please send me the Florida Wildlife Fishing Citation with the inscribed data listed below:

Name (please print) _____

Address _____

City _____ State _____ Zip No. _____

Species _____ Weight _____ Length _____

Type of Tackle _____

Bait or Lure Used _____

Where Caught _____ in _____ County

Date Caught _____ Catch Witnessed By _____

Registered, Weighed By _____ At _____

Signature of Applicant _____

CUT OUT AND SAVE THIS APPLICATION BLANK



Cottontail Rabbit

Photo By Leonard Lee Rue III

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Game & Fresh Water Fish Commission
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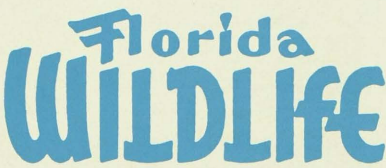
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